

Table S-1. The measured m/z 's and calculated elemental formula for all N containing molecules in the 1 September 2009 rainwater sample.

CHON+	m/z^+	Elemental Formula
	122.057643	C5H9O1N1
	138.052543	C5H9O2N1
	138.088937	C6H13O1N1
	139.047801	C4H8O2N2
	139.084207	C5H12O1N2
	142.047459	C4H9O3N1
	150.052551	C6H9O2N1
	152.031810	C5H7O3N1
	152.068202	C6H11O2N1
	153.063465	C5H10O2N2
	154.047465	C5H9O3N1
	154.058692	C4H9O2N3
	156.063101	C5H11O3N1
	160.036889	C7H7O2N1
	164.068204	C7H11O2N1
	164.104590	C8H15O1N1
	166.047465	C6H9O3N1
	166.083858	C7H13O2N1
	166.120240	C8H17O1N1
	167.079090	C6H12O2N2
	168.063113	C6H11O3N1
	168.099501	C7H15O2N1
	169.058353	C5H10O3N2
	170.021243	C8H5O2N1
	170.042387	C5H9O4N1
	170.078765	C6H13O3N1
	174.038617	C5H5O1N5
	178.083848	C8H13O2N1
	179.079098	C7H12O2N2
	180.063100	C7H11O3N1
	180.099495	C8H15O2N1
	181.033218	C4H6O3N4
	181.058376	C6H10O3N2
	181.094746	C7H14O2N2
	182.078757	C7H13O3N1
	182.115152	C8H17O2N1
	183.074017	C6H12O3N2
	183.085379	C5H12O2N4
	184.058029	C6H11O4N1
	184.094410	C7H15O3N1
	185.053275	C5H10O4N2
	186.073677	C6H13O4N1

192.063101	C8H11O3N1
192.099496	C9H15O2N1
193.058318	C7H10O3N2
193.094739	C8H14O2N2
193.131138	C9H18O1N2
194.078755	C8H13O3N1
194.115149	C9H17O2N1
194.151544	C10H21O1N1
195.074020	C7H12O3N2
195.110381	C8H16O2N2
196.058053	C7H11O4N1
196.094403	C8H15O3N1
196.130859	C9H19O2N1
197.053269	C6H10O4N2
197.089665	C7H14O3N2
198.037289	C6H9O5N1
198.073669	C7H13O4N1
198.110069	C8H17O3N1
199.068961	C6H12O4N2
200.052906	C6H11O5N1
200.089275	C7H15O4N1
201.048142	C5H10O5N2
202.047463	C9H9O3N1
202.068559	C6H13O5N1
206.078799	C9H13O3N1
206.115111	C10H17O2N1
208.058083	C8H11O4N1
208.094392	C9H15O3N1
208.105726	C8H15O2N3
208.130782	C10H19O2N1
208.167152	C11H23O1N1
209.089637	C8H14O3N2
210.073680	C8H13O4N1
210.084902	C7H13O3N3
210.089095	C12H13O1N1
210.146523	C10H21O2N1
211.068934	C7H12O4N2
211.105340	C8H16O3N2
212.052896	C7H11O5N1
212.089280	C8H15O4N1
212.125677	C9H19O3N1
213.059586	C5H10O4N4
214.068545	C7H13O5N1
214.091098	C5H13O3N5
214.120225	C12H17O1N1
215.063867	C6H12O5N2

216.063130	C10H11O3N1
216.084239	C7H15O5N1
218.151508	C12H21O1N1
220.094453	C10H15O3N1
220.105665	C9H15O2N3
220.130790	C11H19O2N1
220.167168	C12H23O1N1
222.073689	C9H13O4N1
222.110036	C10H17O3N1
222.146431	C11H21O2N1
223.105290	C9H16O3N2
224.089298	C9H15O4N1
224.125726	C10H19O3N1
224.162108	C11H23O2N1
225.084538	C8H14O4N2
226.068561	C8H13O5N1
226.104948	C9H17O4N1
226.141351	C10H21O3N1
227.100192	C8H16O4N2
228.084221	C8H15O5N1
228.120620	C9H19O4N1
230.099791	C8H17O5N1
230.115149	C12H17O2N1
232.094434	C11H15O3N1
234.146428	C12H21O2N1
235.105336	C10H16O3N2
236.089296	C10H15O4N1
236.125660	C11H19O3N1
237.107206	C7H14O2N6
237.157317	C11H22O2N2
238.104965	C10H17O4N1
239.100194	C9H16O4N2
240.084216	C9H15O5N1
240.120592	C10H19O4N1
240.157003	C11H23O3N1
242.063485	C8H13O6N1
242.099875	C9H17O5N1
244.079148	C8H15O6N1
245.075889	C8H10O2N6
248.125732	C12H19O3N1
248.162089	C13H23O2N1
249.157373	C12H22O2N2
250.141359	C12H21O3N1
250.214108	C14H29O1N1
251.122841	C8H16O2N6
251.136670	C11H20O3N2

252.084265	C10H15O5N1
252.120598	C11H19O4N1
253.065590	C6H10O4N6
253.069665	C11H10O2N4
254.063430	C9H13O6N1
254.099888	C10H17O5N1
254.136256	C11H21O4N1
256.079176	C9H15O6N1
256.115493	C10H19O5N1
257.087015	C8H10O1N8
258.131206	C10H21O5N1
259.102665	C8H12O1N8
261.118358	C8H14O1N8
262.141326	C13H21O3N1
262.177752	C14H25O2N1
263.122597	C9H16O2N6
264.120665	C12H19O4N1
264.157052	C13H23O3N1
264.193465	C14H27O2N1
265.152320	C12H22O3N2
266.099885	C11H17O5N1
266.136307	C12H21O4N1
267.131543	C11H20O4N2
268.079157	C10H15O6N1
268.115560	C11H19O5N1
268.151959	C12H23O4N1
269.087026	C9H10O1N8
269.147214	C11H22O4N2
270.094869	C10H17O6N1
270.131094	C11H21O5N1
274.141352	C14H21O3N1
275.133958	C9H16O1N8
276.157043	C14H23O3N1
276.193424	C15H27O2N1
276.229804	C16H31O1N1
278.136387	C13H21O4N1
278.172693	C14H25O3N1
278.209112	C15H29O2N1
278.245456	C16H33O1N1
279.131675	C12H20O4N2
280.115529	C12H19O5N1
280.151978	C13H23O4N1
280.188418	C14H27O3N1
281.147221	C12H22O4N2
282.094863	C11H17O6N1
282.131293	C12H21O5N1

282.167637	C13H25O4N1
283.090161	C10H16O6N2
284.110484	C11H19O6N1
284.146864	C12H23O5N1
288.193490	C16H27O2N1
289.113367	C9H14O2N8
290.136157	C14H21O4N1
290.172686	C15H25O3N1
290.209075	C16H29O2N1
291.071403	C11H8O1N8
292.152005	C14H23O4N1
292.188336	C15H27O3N1
292.224761	C16H31O2N1
294.131321	C13H21O5N1
294.167608	C14H25O4N1
296.110520	C12H19O6N1
296.146928	C13H23O5N1
296.183239	C14H27O4N1
296.219702	C15H31O3N1
297.118371	C11H14O1N8
298.089772	C11H17O7N1
298.126120	C12H21O6N1
298.162586	C13H25O5N1
298.214121	C18H29O1N1
299.079165	C17H12O2N2
299.157976	C12H24O5N2
300.229812	C18H31O1N1
301.136995	C11H22O6N2
302.245428	C18H33O1N1
304.151836	C15H23O4N1
304.188499	C16H27O3N1
306.167744	C15H25O4N1
306.204182	C16H29O3N1
306.240340	C17H33O2N1
306.276737	C18H37O1N1
308.146896	C14H23O5N1
308.183312	C15H27O4N1
308.219815	C16H31O3N1
309.157348	C17H22O2N2
310.126178	C13H21O6N1
310.162478	C14H25O5N1
310.171155	C9H21O2N9
310.235425	C16H33O3N1
311.157732	C13H24O5N2
313.173410	C13H26O5N2
314.209170	C18H29O2N1

315.131571	C15H20O4N2
315.138763	C9H20O5N6
315.152699	C12H24O6N2
316.224708	C18H31O2N1
317.168189	C12H26O6N2
318.164831	C12H21O2N7
318.240357	C18H33O2N1
320.146876	C15H23O5N1
320.183360	C16H27O4N1
320.219687	C17H31O3N1
320.256021	C18H35O2N1
322.162544	C15H25O5N1
322.199054	C16H29O4N1
322.271717	C18H37O2N1
324.128974	C12H15O1N9
324.141887	C14H23O6N1
324.178242	C15H27O5N1
324.214362	C16H31O4N1
325.149640	C13H18O1N8
326.157556	C14H25O6N1
326.165674	C9H21O3N9
327.060270	C15H8O2N6
327.165239	C13H20O1N8
328.173084	C14H27O6N1
330.204015	C18H29O3N1
332.219695	C18H31O3N1
332.292432	C20H39O1N1
333.084440	C17H14O4N2
333.162992	C12H26O7N2
334.162536	C16H25O5N1
334.199022	C17H29O4N1
334.214358	C21H29O1N1
334.235330	C18H33O3N1
336.178291	C16H27O5N1
336.214692	C17H31O4N1
337.069680	C18H10O2N4
338.074562	C15H13O5N3
338.143409	C12H21O5N5
338.157661	C15H25O6N1
338.266642	C18H37O3N1
340.173022	C15H27O6N1
340.188202	C19H27O3N1
341.144583	C13H18O2N8
345.032914	C13H10O8N2
346.162507	C17H25O5N1
346.189015	C20H25O1N3

346.199003	C18H29O4N1
347.100188	C18H16O4N2
347.133928	C15H16O1N8
347.230523	C18H32O3N2
348.129110	C14H15O1N9
348.214628	C18H31O4N1
348.250939	C19H35O3N1
349.218057	C12H26O1N10
350.144613	C14H17O1N9
350.193875	C17H29O5N1
350.209189	C21H29O2N1
350.230251	C18H33O4N1
350.238836	C13H29O1N9
350.241324	C17H33O3N3
350.263978	C15H33O1N7
350.981917	C9H4O10N4
351.077389	C9H12O6N8
352.090175	C16H15O5N3
352.173098	C16H27O6N1
352.209525	C17H31O5N1
352.245903	C18H35O4N1
353.144692	C14H18O2N8
354.152153	C15H25O7N1
354.188894	C16H29O6N1
355.149227	C15H20O3N6
357.236150	C16H34O5N2
358.199040	C19H29O4N1
358.308214	C22H41O1N1
359.117486	C11H20O8N4
359.194254	C18H28O4N2
360.178328	C18H27O5N1
360.214849	C19H31O4N1
360.323769	C22H43O1N1
361.149699	C16H18O1N8
362.157580	C17H25O6N1
362.191255	C14H25O3N7
362.193551	C18H29O5N1
362.230403	C19H33O4N1
362.238953	C14H29O1N9
362.241092	C18H33O3N3
363.165164	C16H20O1N8
363.225496	C18H32O4N2
364.209500	C18H31O5N1
364.218112	C13H27O2N9
364.246001	C19H35O4N1
365.142910	C14H22O6N4

365.241100	C18H34O4N2
365.263652	C16H34O2N6
365.277534	C19H38O3N2
366.197012	C12H25O3N9
366.225128	C18H33O5N1
366.258538	C15H33O2N7
367.101094	C16H16O5N4
367.107246	C9H20O10N4
367.143507	C10H24O9N4
367.196427	C16H24O1N8
368.204049	C17H31O6N1
368.240737	C18H35O5N1
370.141370	C22H21O3N1
371.092371	C10H16O8N6
371.096119	C15H16O6N4
371.144072	C15H20O4N6
371.227651	C16H28O1N8
372.214318	C20H31O4N1
373.102193	C17H14O3N6
374.230200	C20H33O4N1
374.303077	C22H41O2N1
375.208981	C12H24O1N12
375.259277	C16H32O1N8
376.209358	C19H31O5N1
376.217967	C14H27O2N9
376.245616	C20H35O4N1
376.254438	C15H31O1N9
377.181004	C17H22O1N8
377.219749	C22H30O2N2
378.184538	C13H29O8N3
378.188789	C18H29O6N1
378.225051	C19H33O5N1
378.261196	C20H37O4N1
378.261603	C20H37O4N1
379.160364	C16H20O2N8
379.220559	C18H32O5N2
379.256825	C19H36O4N2
380.127773	C11H23O10N3
380.204659	C18H31O6N1
380.240704	C19H35O5N1
380.277162	C20H39O4N1
381.164640	C17H22O3N6
381.212274	C17H26O1N8
381.236097	C18H34O5N2
382.220018	C18H33O6N1
383.144167	C16H20O4N6

384.193435	C24H27O2N1
387.087295	C10H16O9N6
388.079022	C20H15O6N1
388.209365	C20H31O5N1
389.274928	C17H34O1N8
390.183111	C26H25O1N1
390.233400	C15H29O2N9
390.297851	C22H41O3N1
391.126188	C20H20O5N2
391.196788	C18H24O1N8
391.290578	C17H36O1N8
392.212732	C14H27O3N9
392.240636	C20H35O5N1
393.176003	C17H22O2N8
393.308757	C21H42O3N2
394.212948	C10H29O6N9
394.256260	C20H37O5N1
394.329149	C22H45O3N1
395.191286	C17H24O2N8
395.191720	C17H24O2N8
396.141716	C20H23O6N1
397.153790	C11H26O10N4
397.206912	C17H26O2N8
397.230637	C18H34O6N2
398.214938	C18H33O7N1
398.230440	C22H33O4N1
399.138535	C16H20O5N6
400.311815	C15H39O2N9
402.243469	C14H33O5N7
403.290752	C18H36O1N8
404.198749	C27H27O1N1
406.217271	C16H29O4N7
407.138845	C12H24O10N4
408.272005	C21H39O5N1
409.165430	C11H26O9N6
409.207351	C18H26O2N8
409.267495	C20H38O5N2
411.169470	C12H28O10N4
411.186520	C17H24O3N8
412.245778	C23H35O4N1
413.107744	C18H14O3N8
413.249391	C17H30O1N10
414.225026	C22H33O5N1
414.327615	C16H41O2N9
416.240491	C22H35O5N1
416.240987	C22H35O5N1

416.277004	C23H39O4N1
416.277515	C23H39O4N1
417.306187	C19H38O1N8
418.214413	C28H29O1N1
420.211489	C20H27O2N7
420.280596	C17H35O2N9
421.232626	C21H30O2N6
422.287303	C22H41O5N1
425.245387	C13H30O3N12
426.218436	C14H29O5N9
426.261356	C24H37O4N1
428.230441	C25H31O2N3
428.240563	C23H35O5N1
430.256374	C23H37O5N1
430.322558	C16H41O3N9
431.169156	C22H24O4N4
436.217728	C19H27O2N9
436.238845	C16H31O4N9
436.303089	C23H43O5N1
437.186394	C15H26O6N8
440.150021	C14H23O8N7
441.265266	C15H34O4N10
444.337826	C17H43O3N9
444.338316	C17H43O3N9
445.131569	C15H14O2N14
446.119763	C20H13O1N11
447.122436	C15H24O12N2
448.116682	C27H15O1N5
449.154648	C20H22O5N6
450.243586	C18H33O5N7
452.233914	C16H31O5N9
454.329098	C27H45O3N1
455.335274	C25H44O2N4
458.353761	C18H45O3N9
459.172792	C18H20O2N12
460.275627	C19H35O3N9
463.131208	C16H16O4N12
463.277946	C23H40O6N2
464.306972	C19H39O3N9
465.377504	C24H50O3N4
467.102262	C16H20O11N4
467.277380	C12H36O6N12
468.101752	C20H19O9N3
469.293445	C28H38O1N4
476.270567	C19H35O4N9
476.307179	C20H39O3N9

479.226233	C24H32O5N4
481.262977	C21H38O7N4
482.265675	C14H37O8N9
483.272581	C12H36O7N12
485.292176	C17H38O5N10
487.304030	C28H40O2N4
488.364477	C19H47O4N9
489.283347	C27H38O3N4
489.304571	C24H42O5N4
493.314536	C27H42O3N4
493.350916	C28H46O2N4
499.129203	C18H20O8N8

CHONS+	<i>m/z</i>⁺	Elemental Formula
	149.998304	C5H5O1N1S1
	163.977666	C5H3O2N1S1
	176.973021	C5H2O2N2S1
	180.008970	C6H7O2N1S1
	185.976700	C3H5O1N3S2
	197.071910	C7H14O1N2S1
	200.017394	C6H11O1N1S2
	202.050880	C6H13O3N1S1
	214.988696	C8H4O2N2S1
	219.986048	C8H7O1N1S2
	222.019665	C8H9O3N1S1
	232.999258	C8H6O3N2S1
	234.996814	C8H8O1N2S2
	236.071565	C10H15O2N1S1
	238.991738	C7H8O2N2S2
	247.014933	C9H8O3N2S1
	249.012485	C9H10O1N2S2
	250.050841	C10H13O3N1S1
	252.045504	C13H11O1N1S1
	252.066482	C10H15O3N1S1
	252.963689	C5H2O5N4S1
	260.994280	C9H6O4N2S1
	264.005128	C8H7O4N3S1
	264.066450	C11H15O3N1S1
	264.971103	C8H6O3N2S2
	266.045764	C10H13O4N1S1
	268.040351	C13H11O2N1S1
	271.929633	C6H3O6N1S2
	273.945293	C6H5O6N1S2
	276.971128	C9H6O3N2S2
	284.961206	C7H6O5N2S2
	287.085859	C10H20O2N2S2
	288.989213	C10H6O5N2S1

294.030196	C5H13O4N5S2
296.997388	C9H10O4N2S2
297.051599	C10H14O5N2S1
298.976860	C8H8O5N2S2
304.058935	C9H11O2N7S1
306.999540	C10H8O6N2S1
311.008924	C5H12O6N4S2
318.139094	C10H25O1N5S2
323.045395	C7H16O5N4S2
327.008080	C10H12O5N2S2
329.005173	C9H10O8N2S1
332.101520	C10H15O1N9S1
334.940323	C10H4O6N2S2
340.178034	C13H27O2N5S1
341.056096	C7H18O6N4S2
349.178416	C14H26O1N6S1
352.984167	C14H6O6N2S1
357.120301	C12H22O5N4S1
361.126486	C10H22O5N6S1
362.135703	C12H25O6N3S1
368.220363	C14H31O1N7S1
368.270818	C18H39O1N3S1
371.106774	C14H24O4N2S2
371.183581	C13H28O3N6S1
373.103678	C13H22O7N2S1
373.114919	C12H22O6N4S1
373.115327	C12H22O6N4S1
373.177060	C15H30O5N2S1
374.212075	C20H33O2N1S1
374.987050	C17H8O3N2S2
375.130948	C12H24O6N4S1
375.142032	C11H24O5N6S1
377.121234	C10H22O6N6S1
378.130566	C12H25O7N3S1
380.146205	C12H27O7N3S1
383.219758	C15H32O2N6S1
384.204121	C15H31O3N5S1
386.081629	C13H21O5N3S2
387.178632	C13H28O4N6S1
387.250974	C15H36O2N6S1
388.232955	C11H31O1N11S1
391.125601	C12H24O7N4S1
394.161928	C13H29O7N3S1
396.123038	C12H27O6N3S2
396.141276	C12H27O8N3S1
397.199085	C15H30O3N6S1

399.178494	C14H28O4N6S1
400.097184	C14H23O5N3S2
400.097598	C22H19O3N1S1
400.134264	C23H23O2N1S1
401.230507	C15H34O3N6S1
406.195532	C19H33O1N3S2
408.123184	C13H27O6N3S2
409.114845	C15H22O6N4S1
409.130828	C19H22O3N4S1
409.170155	C17H30O2N4S2
410.960383	C9H4O10N6S1
411.131016	C15H24O6N4S1
412.093446	C10H23O7N5S2
412.246280	C16H35O2N7S1
413.259890	C23H38O1N2S1
414.262324	C16H37O2N7S1
415.268793	C14H36O1N10S1
419.168221	C13H28O6N6S1
421.140681	C18H26O6N2S1
425.109748	C15H22O7N4S1
425.135085	C17H26O7N2S1
425.184525	C18H26O1N8S1
426.262074	C17H37O2N7S1
428.128151	C16H27O5N3S2
428.241351	C16H35O3N7S1
429.119577	C10H26O7N6S2
430.257069	C16H37O3N7S1
431.241229	C16H36O4N6S1
431.277484	C17H40O3N6S1
435.199560	C14H32O6N6S1
437.215221	C14H34O6N6S1
438.239711	C20H37O4N3S1
439.318953	C20H44O1N6S1
440.149419	C14H31O7N3S2
441.189287	C16H30O5N6S1
441.225516	C17H34O4N6S1
441.298207	C19H42O2N6S1
441.334424	C20H46O1N6S1
443.069270	C10H20O12N4S1
445.112708	C22H22O1N4S2
446.120256	C15H25O9N3S1
447.116886	C23H24O2N2S2
449.215274	C15H34O6N6S1
449.251482	C16H38O5N6S1
451.230803	C15H36O6N6S1
453.209936	C14H34O7N6S1

455.241169	C18H36O4N6S1
457.256792	C18H38O4N6S1
457.329654	C20H46O2N6S1
459.235794	C17H36O5N6S1
461.215374	C16H34O6N6S1
463.230797	C16H36O6N6S1
465.210101	C15H34O7N6S1
469.304507	C19H42O2N8S1
469.329598	C21H46O2N6S1
471.308718	C20H44O3N6S1
472.340468	C20H47O2N7S1
473.251623	C18H38O5N6S1
473.324423	C20H46O3N6S1
474.349238	C26H49O1N3S1
477.246704	C17H38O6N6S1
477.282775	C18H42O5N6S1
479.262194	C17H40O6N6S1
481.154657	C11H26O8N10S1
481.206279	C24H34O1N4S2
481.241287	C16H38O7N6S1
483.134051	C10H24O9N10S1
486.112607	C21H25O5N3S2
487.267284	C19H40O5N6S1
488.301858	C23H47O6N1S1
489.246630	C18H38O6N6S1
491.262311	C18H40O6N6S1
491.298709	C19H44O5N6S1
493.278035	C18H42O6N6S1

CHONP+	<i>m/z</i>⁺	Elemental Formula
	163.974470	C4H2O2N2P1
	178.985655	C4H3O2N3P1
	186.979349	C7H3O2N1P1
	196.996243	C4H5O3N3P1
	197.032618	C5H9O2N3P1
	207.964609	C5H2O4N2P1
	211.011883	C5H7O3N3P1
	215.043191	C5H11O3N3P1
	218.980498	C6H3O3N3P1
	232.963815	C7H4O2N2P2
	238.970193	C5H3O5N3P1
	252.997160	C5H5O4N5P1
	263.053018	C7H15O6N1P1
	264.059495	C5H14O5N4P1
	264.990051	C12H5O3N1P1
	280.948704	C7H4O5N2P2
	285.107372	C7H17O2N7P1

293.969038	C9H7O5N1P2
294.964504	C8H6O5N2P2
300.075143	C8H17O2N5P2
300.157307	C12H26O3N2P1
300.161519	C13H29O1N1P2
312.974892	C12H5O6N1P1
314.954389	C7H6O7N2P2
317.028491	C10H9O4N5P1
317.042588	C13H13O5N1P1
320.958825	C13H4O3N2P2
325.026599	C18H9O2N1P1
330.085472	C13H16O3N4P1
337.070330	C10H16O2N6P2
337.214314	C17H33O2N1P1
339.071762	C11H11O1N9P1
339.154470	C11H23O2N7P1
343.113108	C9H19O4N7P1
345.125176	C20H21O1N1P1
348.990151	C15H8O3N2P2
349.156842	C16H28O1N2P2
354.981360	C9H7O9N3P1
367.149283	C12H23O3N7P1
369.204256	C17H33O4N1P1
371.144457	C11H23O4N7P1
375.007485	C9H11O10N3P1
379.178722	C16H30O1N4P2
383.081154	C8H19O9N5P1
384.139448	C11H22O4N8P1
391.032948	C17H11O5N3P1
397.189315	C20H29O2N3P1
399.214700	C18H35O5N1P1
400.167921	C19H29O1N3P2
401.157468	C16H29O7N1P1
401.193962	C17H33O6N1P1
403.209696	C17H35O6N1P1
405.189005	C16H33O7N1P1
407.141003	C25H23O1N1P1
409.053581	C15H17O9N1P1
414.225527	C18H36O5N2P1
417.306648	C15H41O1N9P1
419.204531	C17H35O7N1P1
425.206550	C15H32O1N8P2
429.240726	C23H37O3N1P1
433.220261	C18H37O7N1P1
437.194041	C20H33O6N1P1
443.240936	C20H39O6N1P1

447.199454	C18H35O8N1P1
447.272358	C20H43O6N1P1
457.220265	C20H37O7N1P1
459.259554	C19H35O1N9P1
461.251448	C20H41O7N1P1
461.287862	C21H45O6N1P1
463.267281	C20H43O7N1P1
471.235899	C21H39O7N1P1
471.272241	C22H43O6N1P1
473.287842	C22H45O6N1P1
475.267130	C21H43O7N1P1
475.303629	C22H47O6N1P1
475.326109	C20H47O4N5P1
487.109918	C28H22O1N2P2
489.319399	C23H49O6N1P1
493.241532	C20H41O9N1P1

CHONSP+	m/z^+	Elemental Formula
	182.987675	C5H7O1N1S1P1
	200.014426	C5H10O1N2S1P1
	203.050541	C6H15O1N1S1P1
	206.987817	C7H7O1N1S1P1
	206.991023	C4H11O1N1S2P1
	208.966982	C6H5O2N1S1P1
	213.957121	C4H4O3N2S1P1
	218.972600	C4H7O4N1S1P1
	242.947375	C4H3O4N3S1P1
	244.981889	C5H9O1N3S2P1
	251.000125	C6H7O1N5S1P1
	256.963152	C5H5O4N3S1P1
	272.944427	C10H5O1N1S2P1
	274.973596	C5H7O5N3S1P1
	275.057663	C6H15O2N5S1P1
	275.972881	C9H6O3N2S1P1
	283.937344	C5H2O5N4S1P1
	288.947425	C8H4O1N4S1P2
	289.934617	C9H4O2N2S2P1
	291.936387	C6H2O1N6S2P1
	292.918774	C5H5O6N1S2P1
	297.078611	C9H17O1N5S1P1
	301.050681	C10H17O4N1S1P1
	302.963034	C9H6O1N4S1P2
	304.966808	C14H5O2N1S1P1
	305.915066	C9H3O4N1S1P2
	305.951993	C7H4O1N6S2P1
	308.940291	C8H5O3N3S2P1
	309.946822	C6H4O2N6S2P1

316.952021	C11H5O5N1S1P1
321.946890	C7H4O2N6S2P1
323.962559	C7H6O2N6S2P1
325.887022	C8H3O4N1S2P2
325.887377	C8H3O4N1S2P2
327.902813	C8H5O4N1S2P2
327.939420	C9H9O3N1S2P2
328.897967	C7H4O4N2S2P2
332.948315	C8H4O2N6S1P2
332.973173	C14H5O2N3S1P1
336.936242	C13H4O2N2S1P2
336.952966	C9H5O6N3S1P1
340.942395	C11H4O2N4S1P2
343.037712	C11H11O1N7S1P1
343.113628	C13H26O1N2S1P2
344.946530	C12H5O6N1S1P1
348.914242	C9H4O2N4S2P2
350.991163	C8H7O4N7S1P1
350.991670	C12H14O1N2S2P2
350.993718	C12H11O6N1S1P1
351.990541	C12H6O2N6S1P1
352.913472	C13H4O1N2S2P2
356.903926	C7H4O4N4S2P2
356.919569	C11H4O1N4S2P2
360.924200	C12H5O5N1S2P1
366.924800	C9H6O3N4S2P2
366.961147	C14H7O2N3S2P1
368.919465	C12H4O1N4S2P2
368.958064	C13H5O5N3S1P1
369.113704	C15H25O4N1S1P1
369.121963	C10H21O1N9S1P1
369.887850	C8H3O5N3S2P2
371.092846	C14H23O5N1S1P1
377.176326	C15H33O4N1S1P1
383.904109	C9H5O5N3S2P2
393.122232	C12H21O1N9S1P1
395.137834	C12H23O1N9S1P1
409.153393	C13H25O1N9S1P1
410.961059	C13H11O7N1S2P1
411.169011	C13H27O1N9S1P1
413.248977	C20H41O2N1S1P1
419.892438	C13H5O6N1S2P2
425.909921	C10H4O8N4S2P1

CHN+	<i>m/z</i>⁺	Elemental Formula
	236.141111	C15H19N1
	320.235031	C21H31N1

376.297699	C25H39N1
347.152032	C23H20N2
419.245848	C28H32N2
416.397255	C25H51N3
211.095377	C10H12N4
496.340651	C30H43N5
257.148468	C11H18N6
355.069978	C20H8N6
401.148256	C23H18N6
411.132788	C24H16N6
425.148734	C25H18N6
481.211105	C29H26N6
241.092091	C8H10N8
243.107734	C8H12N8
255.107672	C9H12N8
327.201374	C14H24N8
329.217234	C14H26N8
343.232922	C15H28N8
345.154694	C16H18N8
347.264371	C15H32N8
357.248727	C16H30N8
359.170026	C17H20N8
361.280005	C16H34N8
375.295663	C17H36N8
389.311301	C18H38N8
403.233227	C20H28N8
403.326948	C19H40N8
332.134025	C14H15N9
430.243640	C21H29N9
309.223199	C10H26N10
397.348410	C16H42N10
369.104273	C14H10N12
401.166849	C16H18N12
415.182473	C17H20N12
427.370117	C16H44N12
429.198335	C18H22N12
423.219768	C15H24N14
423.220394	C15H24N14
437.235828	C16H26N14

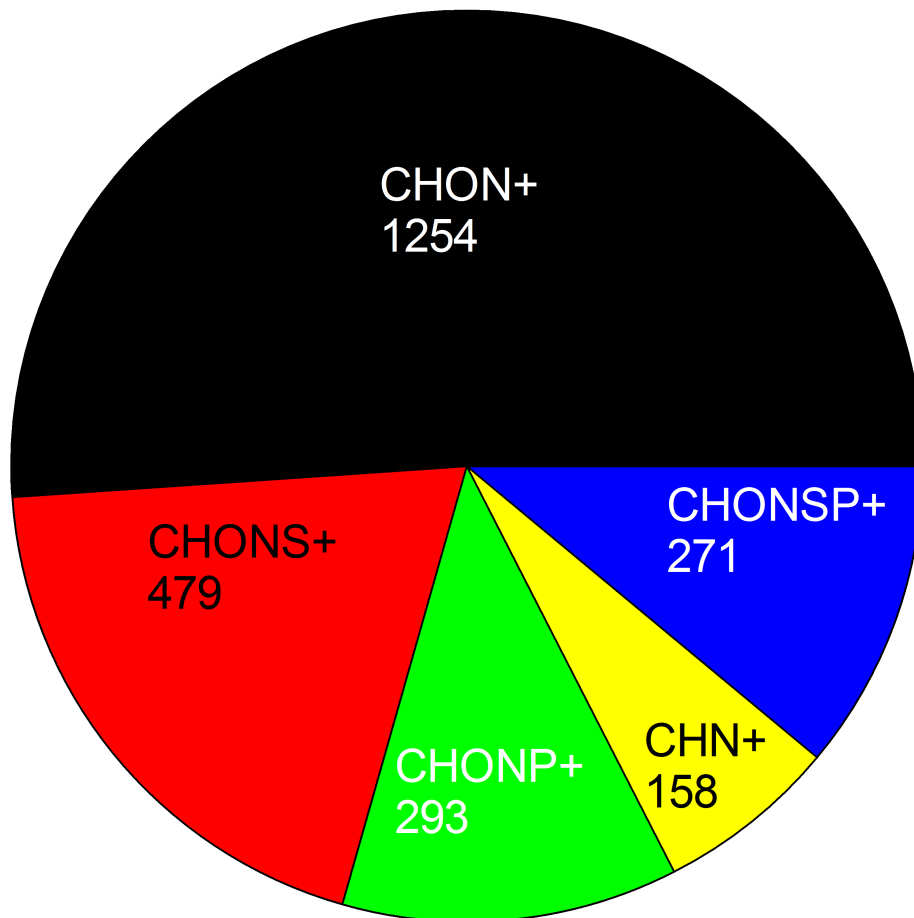


Figure S-1. Number of each type of N containing elemental formula (among 2455 N containing compounds) detected in the marine rainwater samples (positive ion mode m/z 50-500).

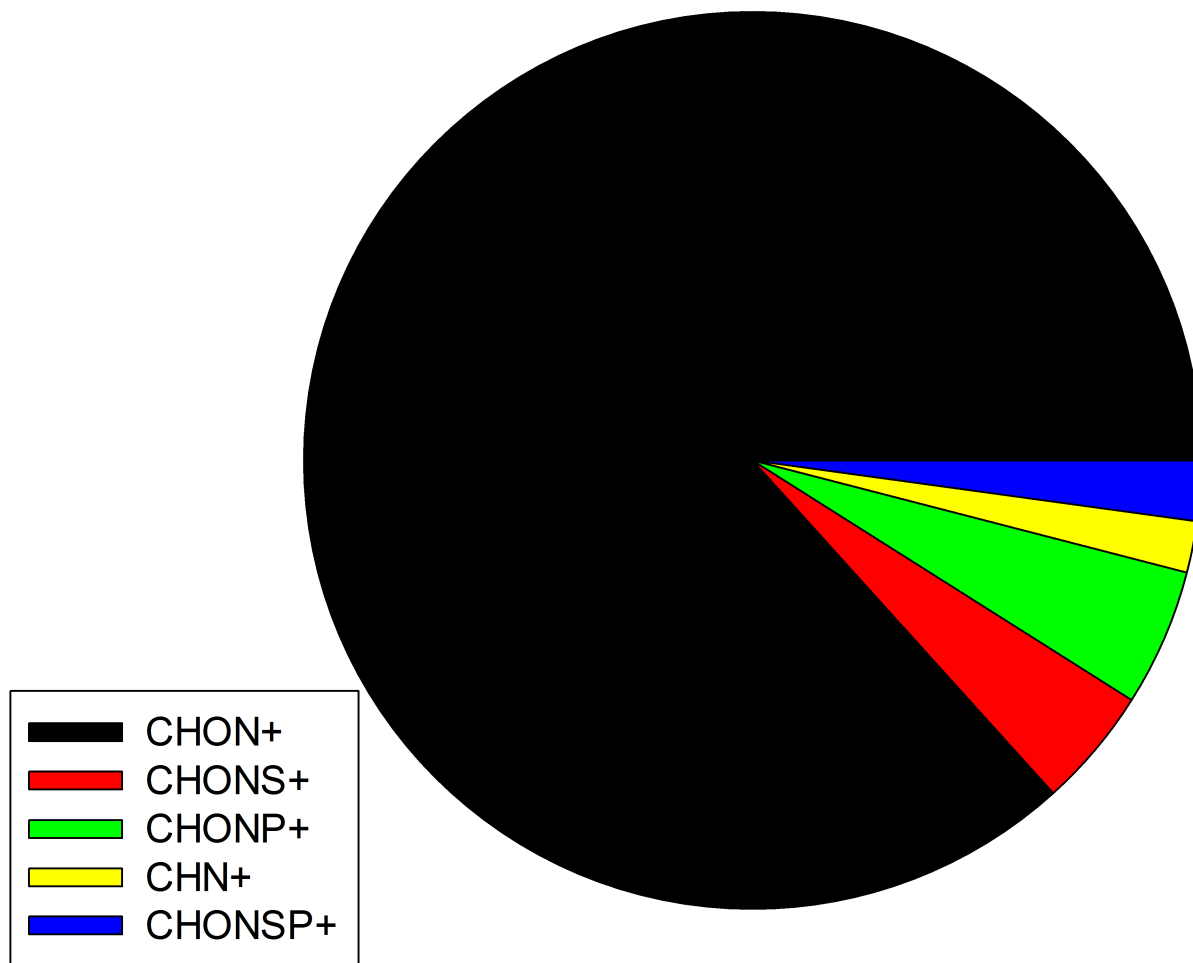


Figure S-2. Number of each type of N containing elemental formula detected in continental rainwater (positive ion mode m/z + 50-300). Modified from Altieri et al., 2009.

Figure S-3. Average DBE vs. O:C for each compound class.

