20110804	Baker #1	Baker #2	Baker #3	
Temp C	91C	89.1C	88.7C	
		temp by	temp by	
vol-%		soil probe	soil probe	average value
He	<0.002	<0.002	<0.002	<0.002
H2	0.6408	0.7269	0.8675	0.7450
Ar	0.0267	0.0125	0.0164	0.0186
O2	0.5668	0.1769	0.2143	0.3193
N2	2.8392	1.5813	1.8323	2.0843
CH4	0.6930	0.7740	0.7110	0.7260
CO2	94.4840	93.6080	93.6133	93.9018
C2H6	<0.0002	<0.0002	<0.0002	<0.0002
H2S	3.7221	3.2090	2.9018	3.2776
CO	<0.001	<0.001	<0.001	<0.001
C3H8	<0.0005	<0.0005	<0.0005	<0.0005
C4H10	<0.0005	<0.0005	<0.0005	<0.0005
Sum	102.9727	100.0886	100.1567	101.0727
N2/Ar	106.2	126.8	111.4	114.8
air-cor.	495.3	201.2	149.9	282.1
N2/O2	5.01	8.94	8.55	7.50
t(D'A,P)	233	233	237	234
CO2 term	1	1	1	1
δ13C-CO2				
d13C-CH4				
He/4He (Rc/Ra)		7.36	7.31	
normalized				average value
vol-%				
He	<0.002	<0.002	<0.002	<0.002
H2	0.6223	0.7262	0.8661	0.7382
Ar	0.0260	0.0125	0.0164	0.0183
O2	0.5504	0.1768	0.2140	0.3137
N2	2.7572	1.5799	1.8295	2.0555
CH4	0.6730	0.7733	0.7099	0.7188
CO2	91.7564	93.5252	93.4668	92.9161
C2H6	<0.0002	<0.0002	<0.0002	<0.0002
H2S	3.6146	3.2061	2.8973	3.2394
CO	<0.001	<0.001	<0.001	<0.001
C3H8	<0.0005	<0.0005	<0.0005	<0.0005
C4H10	<0.0005	<0.0005	<0.0005	<0.0005
CO2/H2S	25.3847	29.1706	32.2601	28.9385
moles steam	0.798	1.347	1.102	1.083
gas/steam	0.0050	0.0030	0.0034	0.0038

From Bill Evans, Oct. 7, 2011

It does appear that H2 and H2S have decreased a bit while CH4 has gone up. The changes are very small, but all would be consistent with cooling temperatures of gas equilibration. In that sense, they are not surprising. The Ar, O2, and N2 concentrations mainly reflect air contamination, so lower concentrations mean that your sampling technique was better this time, or that the vent itself is a bit better sealed off from atmospheric inflow, or both. There is certainly a component of N2 that does not derive from air contamination, but it must be pretty small.