## THE AQUARIUS STREAM PROGENITOR WAS NOT A GLOBULAR CLUSTER

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## ABSTRACT

Subject headings: Galaxy: halo, structure — Individual: Aquarius Stream — Stars: FGK-giants

- 1. INTRODUCTION
- 2. OBSERVATIONS & DATA REDUCTION
  - 3. ANALYSIS
  - 3.1. Radial Velocities
  - 3.2. Line Measurements
  - 3.3. Stellar Parameters

- $3.4.\ Model\ Atmospheres$ 
  - $3.5. \ \ Abundances$
  - 4. DISCUSSION
  - 4.1. Observations

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TABLE 1 Observations

Object	$\alpha$ (J2000)	$\delta$ (J2000)	Observed Date	Airmass	Slit Size (")	,	exp $ecs)$	S/N <sup>a</sup> (px <sup>-1</sup> )	$V_{rad} \ (\mathrm{km\ s}^{-1})$	$V_{err} \ (\mathrm{km\ s}^{-1})$
C2225316-1 C2306265-0			-14:54:39.6 -08:51:04.8	2011-07-30 2011-07-30	1.033 1.096	0.7 0.7			-169.0 $-239.3$	0.7 0.6
HD41667 HD142948	06	:05:03.7 -		2011-03-13 2011-03-14	1.005 1.107	1.0 1.0			314.4 6.8	0.8 0.4
J221821-18	33424 22	:18:21.2 -	-18:34:28.3	2011-07-30	1.026	0.7			-170.5	0.5
J223504-15 J223811-10			-15:28:34.9 -10:41:29.4	2011-07-30 2011-07-30	1.047 $1.218$	$0.7 \\ 0.7$			$-180.9 \\ -248.4$	$0.7 \\ 0.7$

 $<sup>\</sup>overline{\ ^{\mathrm{a}}$  S/N measured at 6000 Å for each target.

TABLE 2 Observed Targets

ID	$\alpha$ (J2000)	$\delta \atop (J2000)$	Air mass		$S/N^a$ $(px^{-1})$	$V_{ m l}$ (km	seliq s-1)	
HD130694	14:50	:17.1	-27:57:41.6	1.289				
HD170642	18:32	:21.0	-39:42:12.8	1.464				
HD180928	19:18	:59.6	-15:32:11.5	1.934				
HD181342	19:21	:03.9	-23:37:09.7	1.203				
HD187111	19:48	:39.3	-12:07:17.8	1.281				
HD210049	22:08	:22.8	-32:59:14.6	1.006				
C2225316-145437	22:25	:31.7	-14:54:39.6	1.033				
J221821-183424	22:18	:21.2	-18:34:28.3	1.026				
J223504-152834	22:35	:04.5	-15:28:34.9	1.047				
J223811-104126	22:38	:11.6	-10:41:29.4	1.218				
C2306265-085103	23:06	:26.6	-08:51:04.8	1.096		• • •		
HD219615	23:17	:10.7	+03:16:51.9	1.412		• • •		

 $<sup>\</sup>overline{\ ^{\mathrm{a}}}$  S/N measured at 6000 Å for each target.

TABLE 3 Observed Targets

Star	$\alpha$ (J2000)	δ (J2000)	Observed	Air mass	Seeing (")	S/N <sup>a</sup> (px <sup>-1</sup> )	$V_{\text{helio}} \atop (\text{km s}^{-1})$	Comment
AQS 1 AQS 2	12 43 42.9 12 51 24.8	-44 40 35.8 -13 29 31.3	April 2011 April 2011	?	?	260 232	?	?

 $<sup>^{\</sup>mathrm{a}}$  S/N measured at 600 nm for each target.