



Test Monitoring Center

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MEMORANDUM: 17-003
DATE: March 7, 2017
TO: EOWT Surveillance Panel
FROM: Michael T. Kasimirsky
SUBJECT: Reference Oil 77-3 Target Update

On July 20, 2015, the EOWT Surveillance Panel approved a motion to introduce reference oil 77-3 into the calibration system, based upon a series of donated tests, to be completed by May 31, 2016. The motion also contained provisions for these targets to be updated at 30 data points and then updated and frozen, based on all data completed within six months after the first usage of reference oil 77-3 in the calibration system.

The updated test targets, based upon the first 30 data points obtained, are shown in the following table:

Reference Oil 77-3						
WT%	N	Mean	Std Dev	K	Target Range	
0.6	32	-10.08	3.28	1.96	-16.51	-3.65
1.0	32	-8.64	2.69	1.96	-13.92	-3.36
2.0	31	-9.79	2.82	1.96	-15.32	-4.26
3.0	31	-10.91	2.79	1.96	-16.38	-5.44

Note that the upper and lower limits shown in the "Target Range" block are the official test targets for the EOWT test; the target mean and standard deviation are shown for information purposes only.

These targets are effective for all tests completed on or after March 20, 2017.

Plots of the initial and updated test targets, along with the final test targets used for reference oil 77-2, and the individual data points used to calculate the targets are shown on the following pages.

MTK/mtk

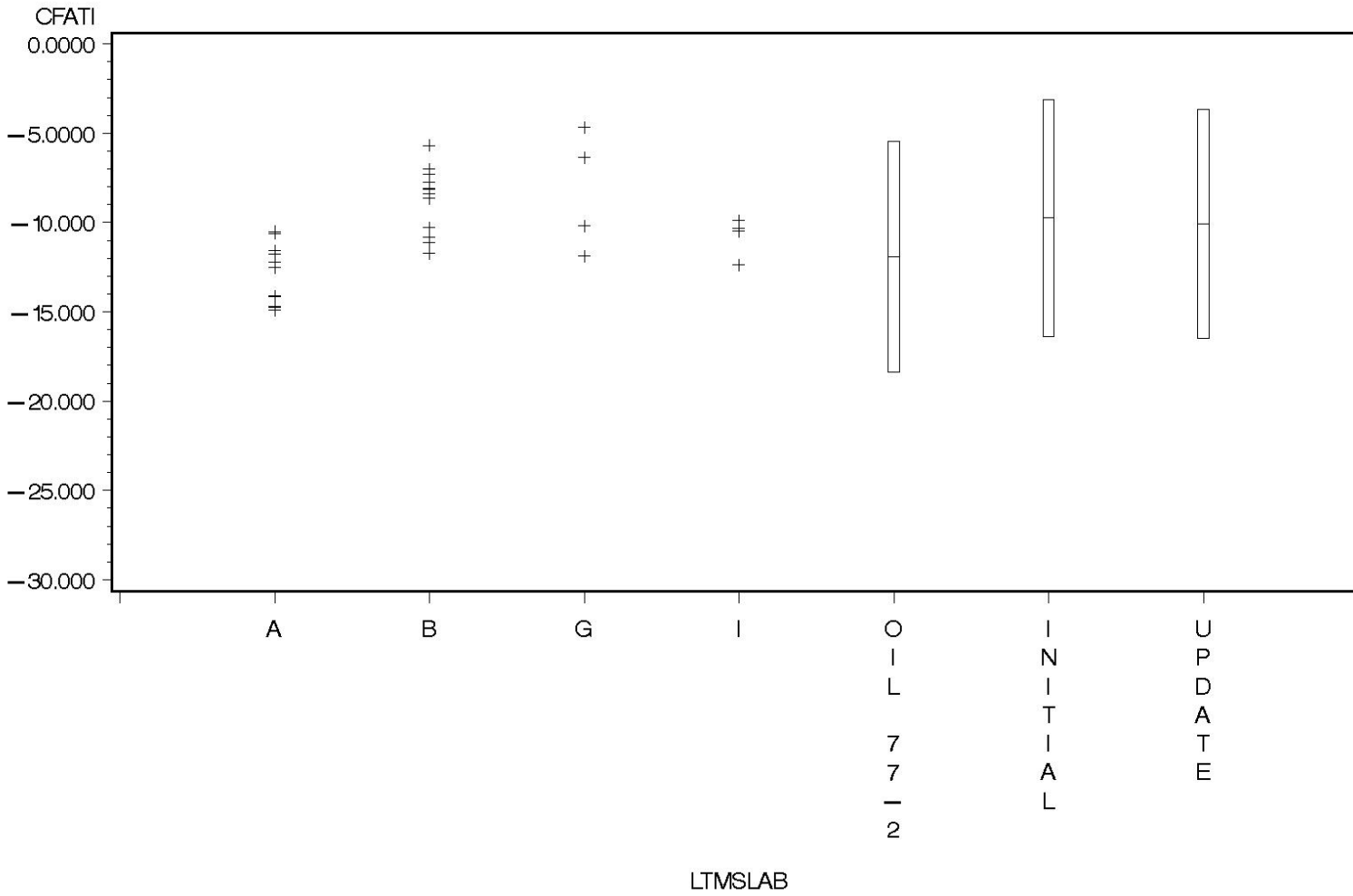
c: <ftp://ftp.astmtmc.cmu.edu/docs/bench/eowt/memo/mem17-003.mtk.pdf>

Distribution: email

EOWT Reference Oil 77-3

Test Target Data Set and Acceptance Bands

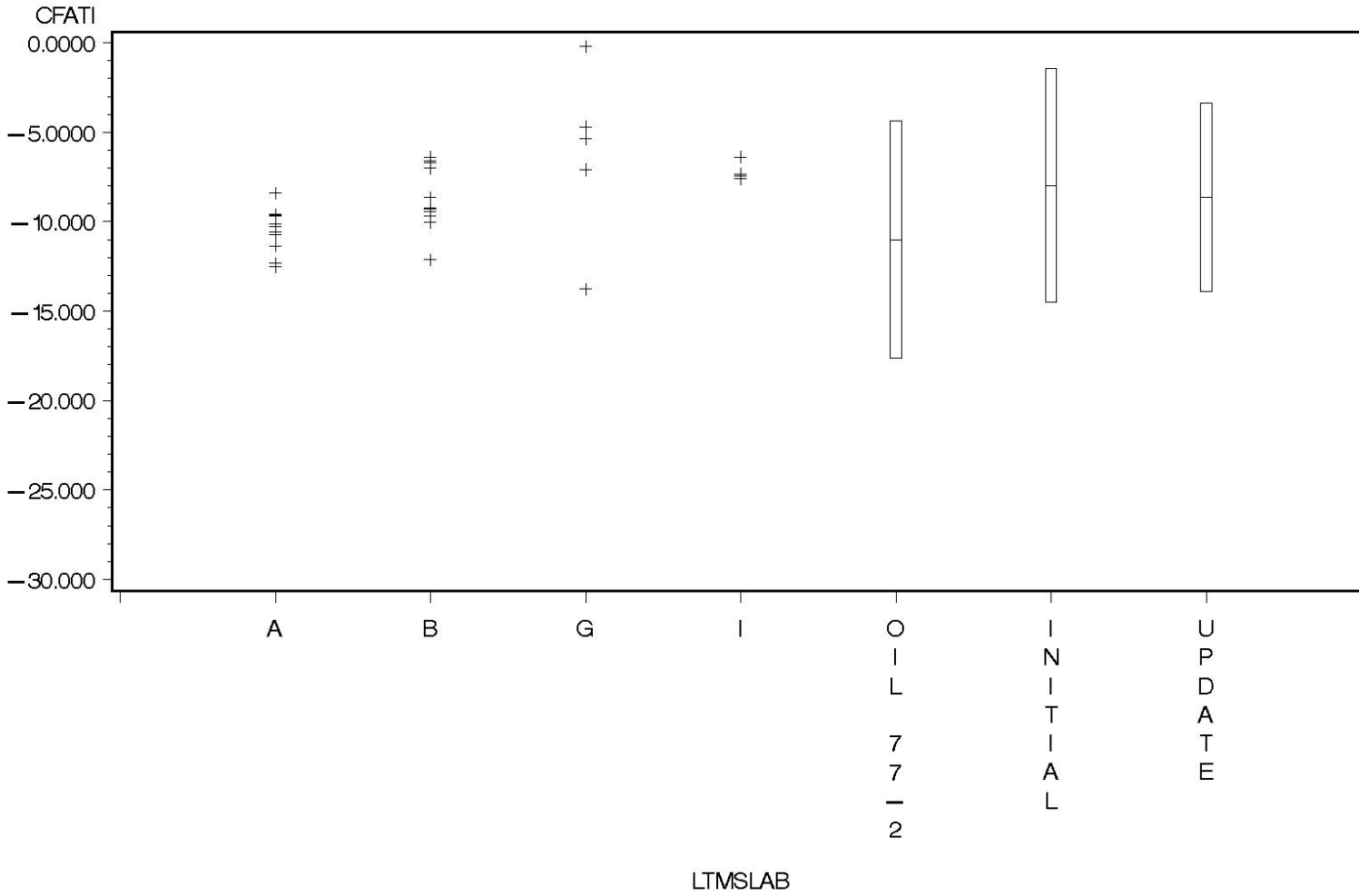
Change in Flowrate Average, 0.6% Water Concentration



EOWT Reference Oil 77-3

Test Target Data Set and Acceptance Bands

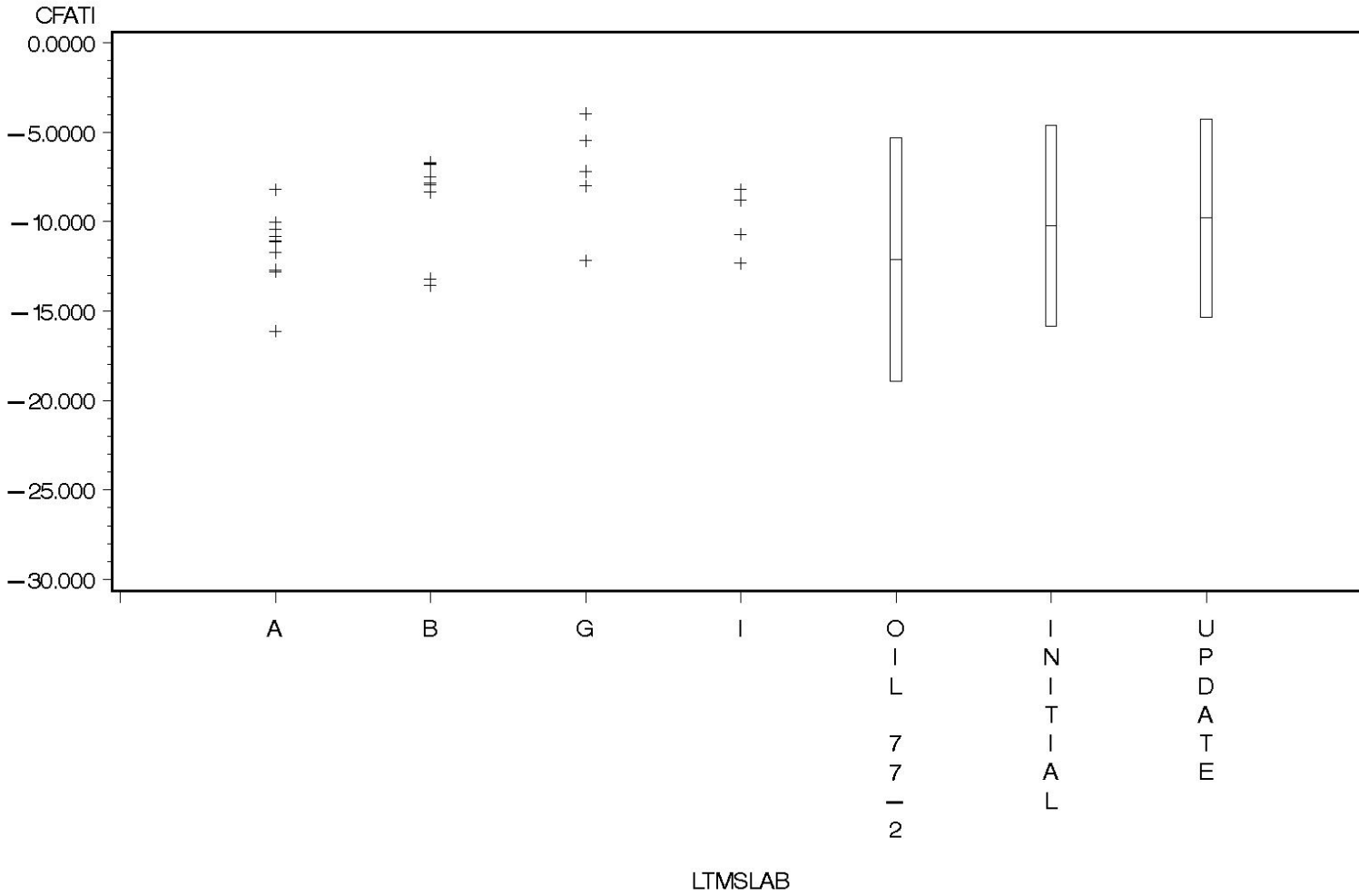
Change in Flowrate Average, 1.0% Water Concentration



EOWT Reference Oil 77-3

Test Target Data Set and Acceptance Bands

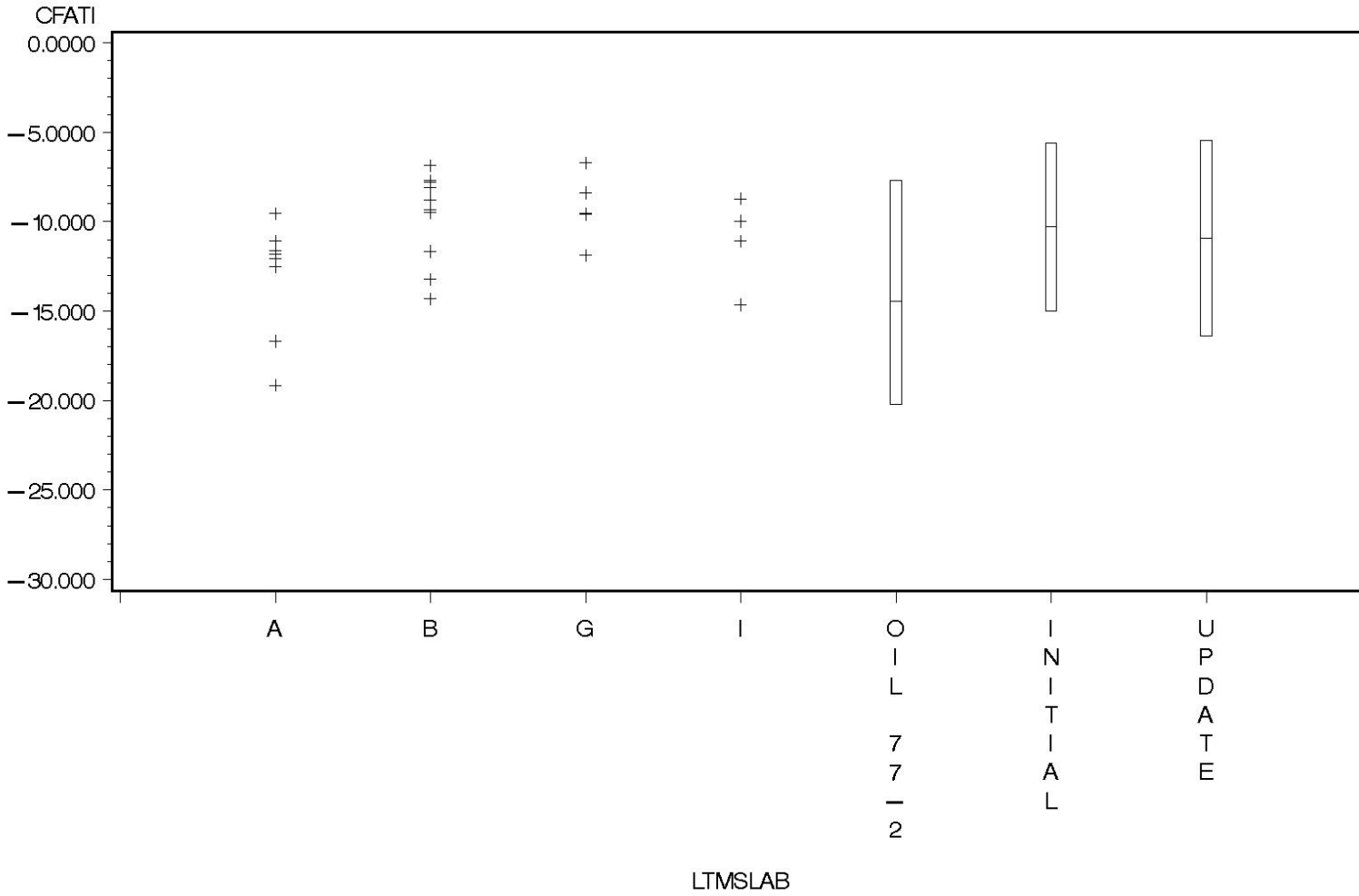
Change in Flowrate Average, 2.0% Water Concentration



EOWT Reference Oil 77-3

Test Target Data Set and Acceptance Bands

Change in Flowrate Average, 3.0% Water Concentration



TESTKEY	LAB	IND	VAL	DATE	TIME	WT%	CF1_R001	CF2_R001	CFA
106890-EOWT	G	77-3	NI	20150722	16:30	0.6	4.34	-3.8	0.27
106894-EOWT	G	77-3	NI	20150723	16:30	0.6	-9.49	-10.87	-10.18
107476-EOWT	G	77-3	NI	20150724	16:30	0.6	-10.73	-12.99	-11.86
107716-EOWT	A	77-3	NI	20150802	11:26	0.6	-11.9	-11.63	-11.77
107720-EOWT	A	77-3	NI	20150805	13:41	0.6	-11.43	-9.76	-10.6
108622-EOWT	A	77-3	NI	20150806	09:48	0.6	-9.09	-11.9	-10.5
110517-EOWT	I	77-3	NI	20160224	11:00	0.6	-10.26	-9.52	-9.89
110522-EOWT	I	77-3	NI	20160316	11:00	0.6	-8.11	-12.82	-10.47
110526-EOWT	I	77-3	NI	20160406	11:00	0.6	-9.3	-11.36	-10.33
107017-EOWT	B	77-3	NI	20160714	09:03	0.6	-10.81	-10.81	-10.81
107021-EOWT	B	77-3	NI	20160715	15:42	0.6	-11.43	-10.81	-11.12
107025-EOWT	B	77-3	AC	20170126	08:52	0.6	-5.71	-8.33	-7.02
119118-EOWT	B	77-3	AC	20170201	08:31	0.6	-15.15	-8.33	-11.74
110455-EOWT	A	77-3	AC	20170201	13:34	0.6	-11.9	-12.5	-12.2
110459-EOWT	A	77-3	AC	20170202	08:51	0.6	-11.11	-13.95	-12.53
119122-EOWT	B	77-3	AC	20170202	11:39	0.6	-14.29	-6.25	-10.27
110463-EOWT	A	77-3	AC	20170202	13:17	0.6	-14	-15.38	-14.69
119126-EOWT	B	77-3	AC	20170208	09:10	0.6	-12.5	-3.03	-7.76
123074-EOWT	A	77-3	AC	20170209	13:23	0.6	-14.29	-15.22	-14.76
119885-EOWT	B	77-3	AC	20170210	15:16	0.6	-7.89	-8.33	-8.11
123611-EOWT	I	77-3	AC	20170215	09:00	0.6	-12.82	-11.9	-12.36
119889-EOWT	B	77-3	AC	20170215	09:52	0.6	-5.88	-11.43	-8.66
107480-EOWT	G	77-3	AC	20170215	16:30	0.6	-3.48	-9.24	-6.36
123078-EOWT	A	77-3	AC	20170216	13:21	0.6	-13.33	-14.89	-14.11
119893-EOWT	B	77-3	AC	20170222	09:13	0.6	-3.03	-8.33	-5.68
119895-EOWT	B	77-3	AC	20170223	08:47	0.6	-10.53	-5.71	-8.12
119899-EOWT	B	77-3	AC	20170224	14:24	0.6	-9.09	-7.69	-8.39
119903-EOWT	B	77-3	AC	20170301	09:30	0.6	-6.45	-8.11	-7.28
124007-EOWT	A	77-3	AC	20170301	13:30	0.6	-10.64	-12.5	-11.57
107484-EOWT	G	77-3	AC	20170301	16:30	0.6	-7.32	-2.04	-4.68
123082-EOWT	A	77-3	AC	20170303	08:52	0.6	-13.04	-15.22	-14.13
124011-EOWT	A	77-3	AC	20170303	13:19	0.6	-11.63	-18.18	-14.91

TESTKEY	LAB	IND	VAL	DATE	TIME	WT%	CF1_R001	CF2_R001	CFA
106891-EOWT	G	77-3	NI	20150722	16:30	1.0	-15.96	-11.54	-13.75
106895-EOWT	G	77-3	NI	20150723	16:30	1.0	0.35	-0.74	-0.2
107477-EOWT	G	77-3	NI	20150724	16:30	1.0	-6.79	-7.37	-7.08
107717-EOWT	A	77-3	NI	20150802	10:51	1.0	-9.09	-7.69	-8.39
107721-EOWT	A	77-3	NI	20150805	13:25	1.0	-11.9	-8.7	-10.3
108623-EOWT	A	77-3	NI	20150806	09:22	1.0	-9.52	-9.76	-9.64
110518-EOWT	I	77-3	NI	20160224	11:00	1.0	-7.89	-7.32	-7.61
110523-EOWT	I	77-3	NI	20160316	11:00	1.0	-5.26	-7.5	-6.38
110527-EOWT	I	77-3	NI	20160406	11:00	1.0	-7.32	-7.32	-7.32
107018-EOWT	B	77-3	NI	20160714	09:03	1.0	-12.2	-7.89	-10.04
107022-EOWT	B	77-3	NI	20160715	15:42	1.0	-8.57	-5.41	-6.99
107027-EOWT	B	77-3	AC	20170126	08:52	1.0	-4.88	-7.89	-6.38
119119-EOWT	B	77-3	AC	20170201	08:31	1.0	-7.69	-11.63	-9.66
110456-EOWT	A	77-3	AC	20170201	13:18	1.0	-12.24	-12.77	-12.51
110460-EOWT	A	77-3	AC	20170202	08:46	1.0	-7.14	-12.24	-9.69
119123-EOWT	B	77-3	AC	20170202	11:39	1.0	-7.5	-5.26	-6.38
110464-EOWT	A	77-3	AC	20170202	13:11	1.0	-10.2	-12.5	-11.35
119127-EOWT	B	77-3	AC	20170208	09:10	1.0	-11.76	-12.5	-12.13
123075-EOWT	A	77-3	AC	20170209	13:17	1.0	-8.51	-10.64	-9.58
119886-EOWT	B	77-3	AC	20170210	15:16	1.0	-7.89	-5.26	-6.58
119890-EOWT	B	77-3	AC	20170215	09:52	1.0	-8.33	-10.26	-9.3
123612-EOWT	I	77-3	AC	20170215	12:00	1.0	-5.13	-9.76	-7.45
107481-EOWT	G	77-3	AC	20170215	16:30	1.0	-3.34	-6.06	-4.7
123079-EOWT	A	77-3	AC	20170216	13:13	1.0	-11.11	-10	-10.56
119894-EOWT	B	77-3	AC	20170222	09:13	1.0	-2.63	-10.81	-6.72
119896-EOWT	B	77-3	AC	20170223	08:47	1.0	-10	-7.32	-8.66
119900-EOWT	B	77-3	AC	20170224	14:24	1.0	-8.33	-10.53	-9.43
123151-EOWT	B	77-3	AC	20170301	09:30	1.0	-18.42	0	-9.21
124008-EOWT	A	77-3	AC	20170301	13:25	1.0	-10.64	-14	-12.32
107485-EOWT	G	77-3	AC	20170301	16:30	1.0	-4.88	-5.79	-5.34
123083-EOWT	A	77-3	AC	20170303	08:46	1.0	-11.36	-8.89	-10.13
124012-EOWT	A	77-3	AC	20170303	13:13	1.0	-12.77	-8.7	-10.74

TESTKEY	LAB	IND	VAL	DATE	TIME	WT%	CF1_R001	CF2_R001	CFA
106892-EOWT	G	77-3	NI	20150722	16:30	2.0	-11.33	-13	-12.17
106896-EOWT	G	77-3	NI	20150723	16:30	2.0	-3.44	-4.46	-3.95
107478-EOWT	G	77-3	NI	20150724	16:30	2.0	-8.23	-7.74	-7.99
107718-EOWT	A	77-3	NI	20150802	12:35	2.0	-11.11	-14.29	-12.7
107722-EOWT	A	77-3	NI	20150805	14:51	2.0	-10.53	-9.52	-10.03
108624-EOWT	A	77-3	NI	20150806	10:34	2.0	-10.26	-11.9	-11.08
110519-EOWT	I	77-3	NI	20160224	11:00	2.0	-5.88	-10.53	-8.21
110524-EOWT	I	77-3	NI	20160316	11:00	2.0	-10.26	-7.32	-8.79
110528-EOWT	I	77-3	NI	20160406	11:00	2.0	-13.89	-7.5	-10.7
107019-EOWT	B	77-3	NI	20160714	09:03	2.0	-19.44	-7.69	-13.57
107023-EOWT	B	77-3	NI	20160715	15:42	2.0	-12.12	-14.29	-13.2
107028-EOWT	B	77-3	AC	20170126	08:52	2.0	-9.76	-5.26	-7.51
119120-EOWT	B	77-3	AC	20170201	08:31	2.0	-7.14	-20	-13.57
110457-EOWT	A	77-3	AC	20170201	14:21	2.0	-13.33	-12.24	-12.79
110461-EOWT	A	77-3	OC	20170202	09:02	2.0	-15.56	-16.67	-16.12
119124-EOWT	B	77-3	AC	20170202	11:39	2.0	-8.11	-5.41	-6.76
110465-EOWT	A	77-3	AC	20170202	13:48	2.0	-10.87	-10	-10.44
119128-EOWT	B	77-3	AC	20170208	09:10	2.0	-8.33	-5.26	-6.8
123076-EOWT	A	77-3	AC	20170209	13:50	2.0	-14.58	-8.89	-11.74
119887-EOWT	B	77-3	AC	20170210	15:16	2.0	-5.13	-10.53	-7.83
119891-EOWT	B	77-3	AC	20170215	09:52	2.0	-11.43	-5.26	-8.35
107482-EOWT	G	77-3	AC	20170215	16:30	2.0	-5.68	-5.23	-5.46
123613-EOWT	I	77-3	AC	20170216	10:00	2.0	-10	-14.63	-12.32
123080-EOWT	A	77-3	AC	20170216	13:47	2.0	-7.32	-9.09	-8.21
119897-EOWT	B	77-3	AC	20170223	08:47	2.0	-5.88	-10	-7.94
119901-EOWT	B	77-3	AC	20170224	14:24	2.0	-5.26	-8.11	-6.68
123152-EOWT	B	77-3	AC	20170301	09:30	2.0	-10.53	-5.13	-7.83
124009-EOWT	A	77-3	AC	20170301	14:17	2.0	-11.36	-10.87	-11.12
107486-EOWT	G	77-3	AC	20170301	16:30	2.0	-6.22	-8.13	-7.18
124005-EOWT	A	77-3	AC	20170303	09:04	2.0	-8.89	-14.58	-11.74
124013-EOWT	A	77-3	AC	20170303	13:30	2.0	-8.89	-12.77	-10.83

TESTKEY	LAB	IND	VAL	DATE	TIME	WT%	CF1_R001	CF2_R001	CFA
106893-EOWT	G	77-3	NI	20150722	16:30	3.0	-7.97	-5.46	-6.72
106897-EOWT	G	77-3	NI	20150723	16:30	3.0	-8.08	-11	-9.54
107479-EOWT	G	77-3	NI	20150724	16:30	3.0	-14.35	-9.42	-11.89
107719-EOWT	A	77-3	NI	20150802	11:38	3.0	-11.9	-13.16	-12.53
107723-EOWT	A	77-3	NI	20150805	14:15	3.0	-11.9	-10.26	-11.08
108625-EOWT	A	77-3	NI	20150806	09:47	3.0	-10	-9.09	-9.55
110520-EOWT	I	77-3	NI	20160225	11:00	3.0	-8.82	-11.11	-9.97
110521-EOWT	I	77-3	NI	20160317	11:00	3.0	-7.89	-9.52	-8.71
110525-EOWT	I	77-3	NI	20160406	11:00	3.0	-15.38	-13.89	-14.64
107020-EOWT	B	77-3	NI	20160714	09:03	3.0	-10.81	-12.5	-11.66
107024-EOWT	B	77-3	NI	20160715	15:42	3.0	-5.41	-8.33	-6.87
119117-EOWT	B	77-3	AC	20170126	08:52	3.0	-8.11	-10.53	-9.32
119121-EOWT	B	77-3	AC	20170201	08:31	3.0	-7.89	-8.33	-8.11
110458-EOWT	A	77-3	OC	20170201	13:36	3.0	-19.15	-19.15	-19.15
110462-EOWT	A	77-3	AC	20170202	09:14	3.0	-11.11	-13.95	-12.53
119125-EOWT	B	77-3	AC	20170202	11:39	3.0	-7.5	-8.11	-7.8
110466-EOWT	A	77-3	OC	20170202	13:41	3.0	-14.81	-18.52	-16.67
119880-EOWT	B	77-3	AC	20170208	09:10	3.0	-7.89	-11.11	-9.5
123077-EOWT	A	77-3	AC	20170209	13:59	3.0	-14.63	-9.52	-12.08
119888-EOWT	B	77-3	AC	20170210	15:16	3.0	-10.81	-8.11	-9.46
119892-EOWT	B	77-3	AC	20170215	09:52	3.0	-7.32	-10.26	-8.79
107483-EOWT	G	77-3	AC	20170215	16:30	3.0	-9	-10.2	-9.6
123614-EOWT	I	77-3	AC	20170216	13:00	3.0	-7.5	-14.63	-11.07
123081-EOWT	A	77-3	AC	20170216	13:49	3.0	-10.87	-12.77	-11.82
119898-EOWT	B	77-3	AC	20170223	08:47	3.0	-5.41	-21.05	-13.23
119902-EOWT	B	77-3	AC	20170224	14:24	3.0	-20.51	-8.11	-14.31
123153-EOWT	B	77-3	AC	20170301	09:30	3.0	-7.89	-7.5	-7.7
124010-EOWT	A	77-3	AC	20170301	14:15	3.0	-13.04	-10.64	-11.84
107487-EOWT	G	77-3	AC	20170301	16:30	3.0	-8.96	-7.77	-8.37
124006-EOWT	A	77-3	AC	20170303	09:12	3.0	-11.36	-12.77	-12.07
124014-EOWT	A	77-3	AC	20170303	13:25	3.0	-11.63	-11.63	-11.63