




Test Monitoring Center

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MEMORANDUM: 11-054
DATE: November 18, 2011
TO: OSCT Surveillance Panel
FROM: Scott Parke 
SUBJECT: Initial Oil 169 Targets

At its November 2, 2011 meeting, the OSCT Surveillance Panel decided that its initial data collection to assess oil 169 performance is completed. They further agreed to generate targets using the data collected so far and to approve the oil for use in reference testing. As per standard practice, these targets will be updated after 30 tests have been completed.

Attached are plots showing the 169 data for all elastomer/parameter combinations as well as historic performance on oil 161-1 (the oil being replaced with 169). Data reported by lab B on 161-1 is represented by blue dots; 161-1 data from lab C is depicted as red squares. Lab B's 169 data is shown as green triangles and lab C's is magenta diamonds. The current 161-1 targets are shown numerically on the first line beneath the plot title and are represented on the plot by the solid horizontal lines. The initial 169 targets are numerically shown on the following line and on the plot by dashed lines. For comparison purposes, also shown are the mean and standard deviation of the most recent 30 tests on oil 161-1. Following the plots is a table of all the 169 data reported to date and used in these initial targets.

These targets will be in effect immediately. Targets will be updated at 30 tests. Until the 30-test update, as per agreement with the panel chairman, targets will also be updated if a test is reported that fails to meet the then-current targets. The failing test will be re-evaluated against the newly calculated targets.

Elastomer	PELA		PVCA		SAHA	
	Mean	Std	Mean	Std	Mean	Std
FL	-39.5	6.85	4.4	0.2	0.1	0.83
NI	-16.2	5.37	11.8	0.21	-8.6	1.43
PA	49.2	21.82	13.1	0.77	-16	1.73

SDP/sdp/mem11-054.sdp.docx

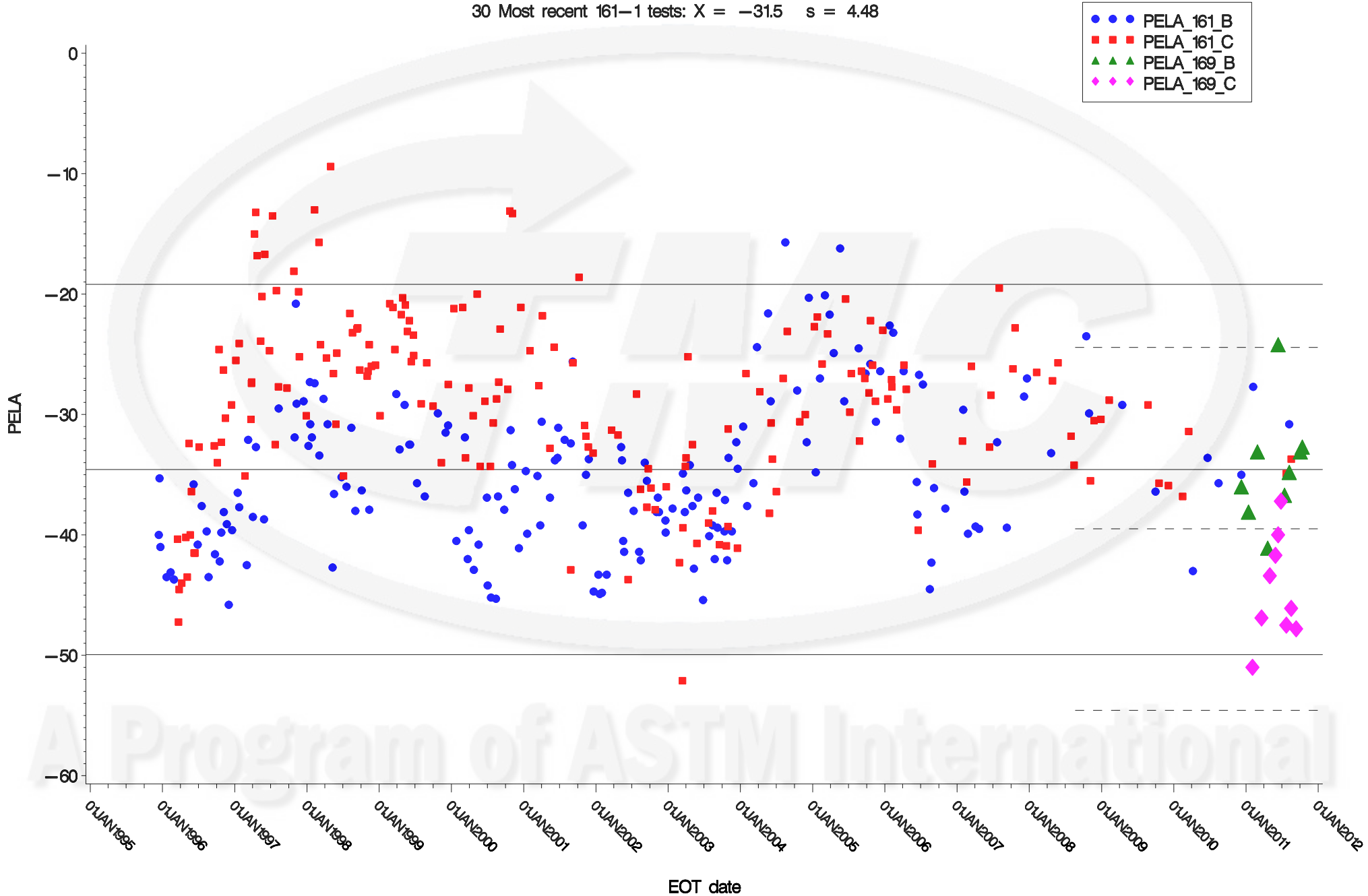
cc: Frank Farber
Jeff Clark

<ftp://ftp.astmtmc.cmu.edu/docs/gear/osct/memos/mem11-054.sdp.pdf>

Distribution: email
attachments

Fluoroelastomer Percent Elongation

161-1 Target: $X = -34.57$ $s = 6.989$
169 Target: $X = -39.5$ $s = 6.85$
30 Most recent 161-1 tests: $X = -31.5$ $s = 4.48$

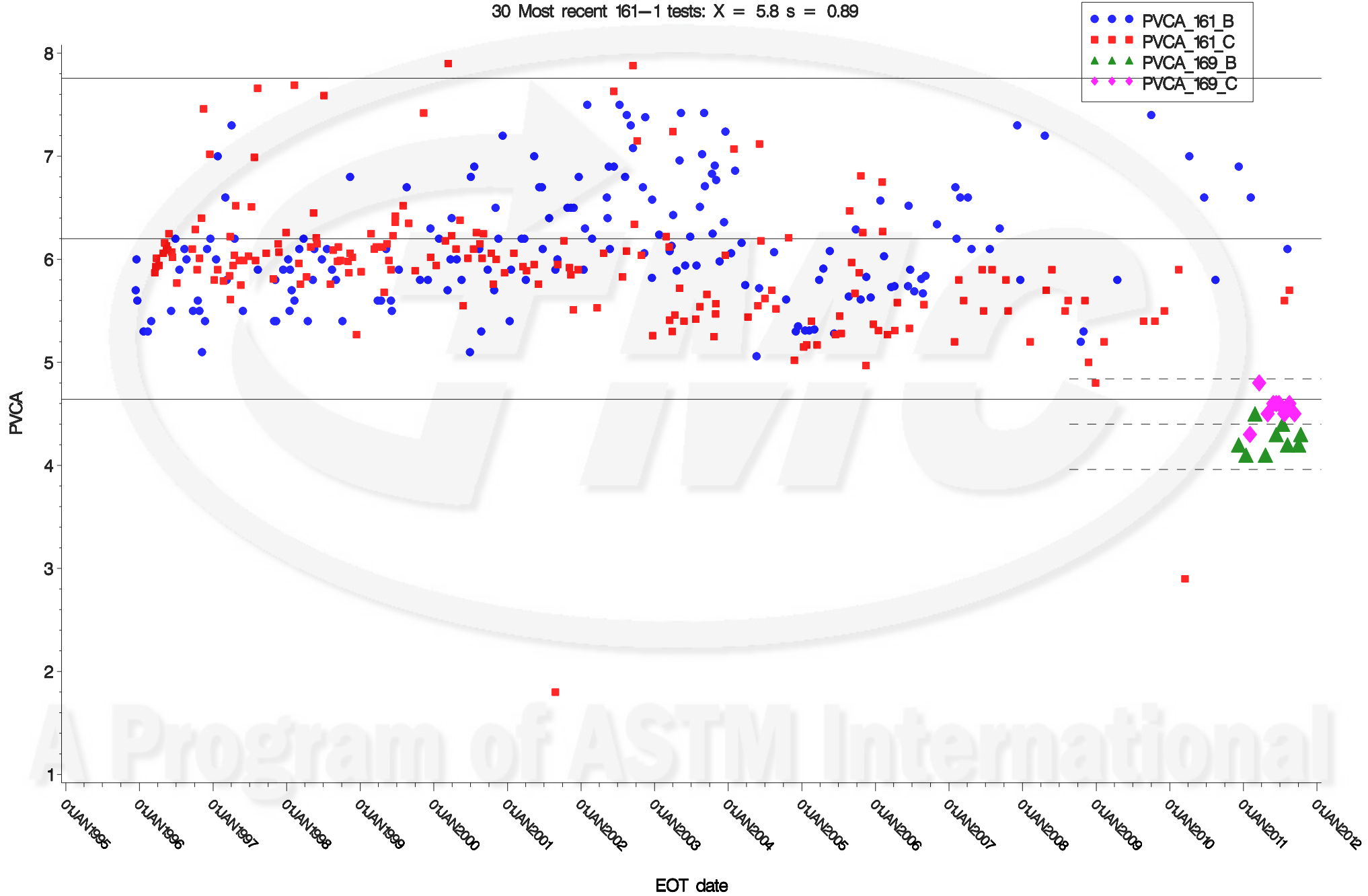


Fluoroelastomer Percent Volume Change

161-1 Target: $X = 6.199$ $s = 0.708$

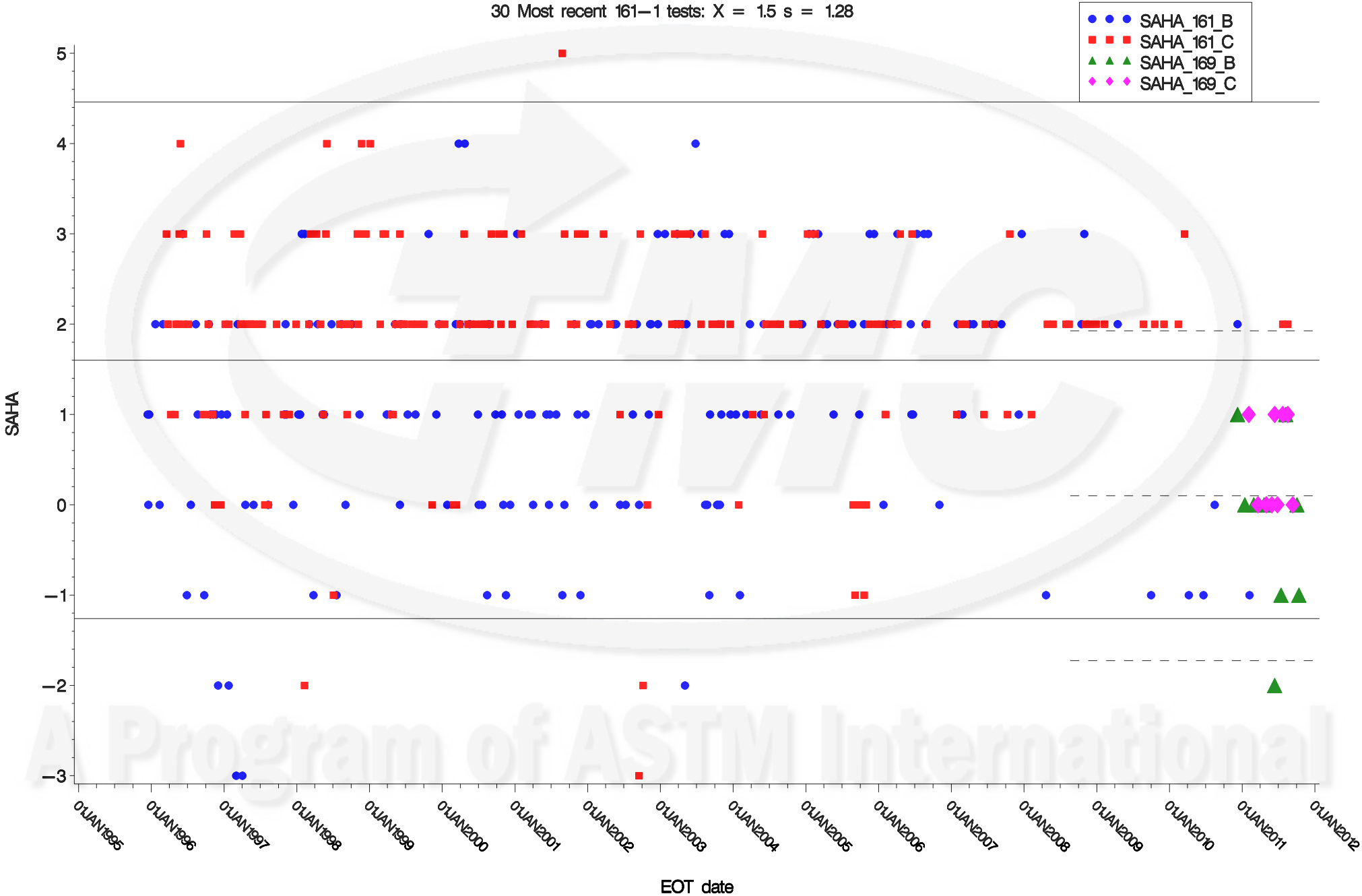
169 Target: $X = 4.4$ $s = 0.20$

30 Most recent 161-1 tests: $X = 5.8$ $s = 0.89$



Fluoroelastomer Points Hardness Change

161-1 Target: X = 1.6 s = 1.3
 169 Target: X = 0.1 s = 0.83
 30 Most recent 161-1 tests: X = 1.5 s = 1.28

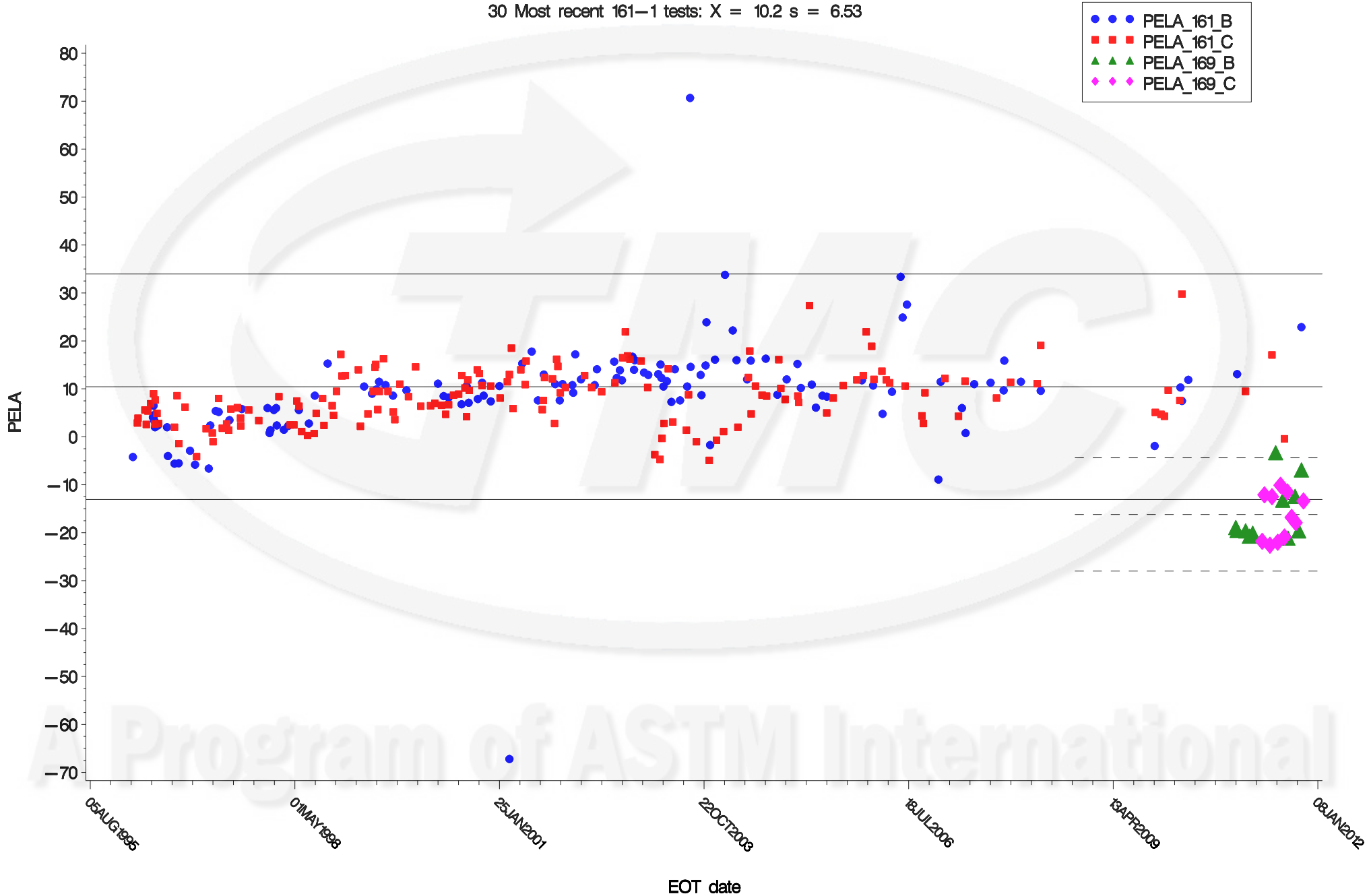


Nitrile Percent Elongation

161-1 Target: $X = 10.43$ $s = 10.691$

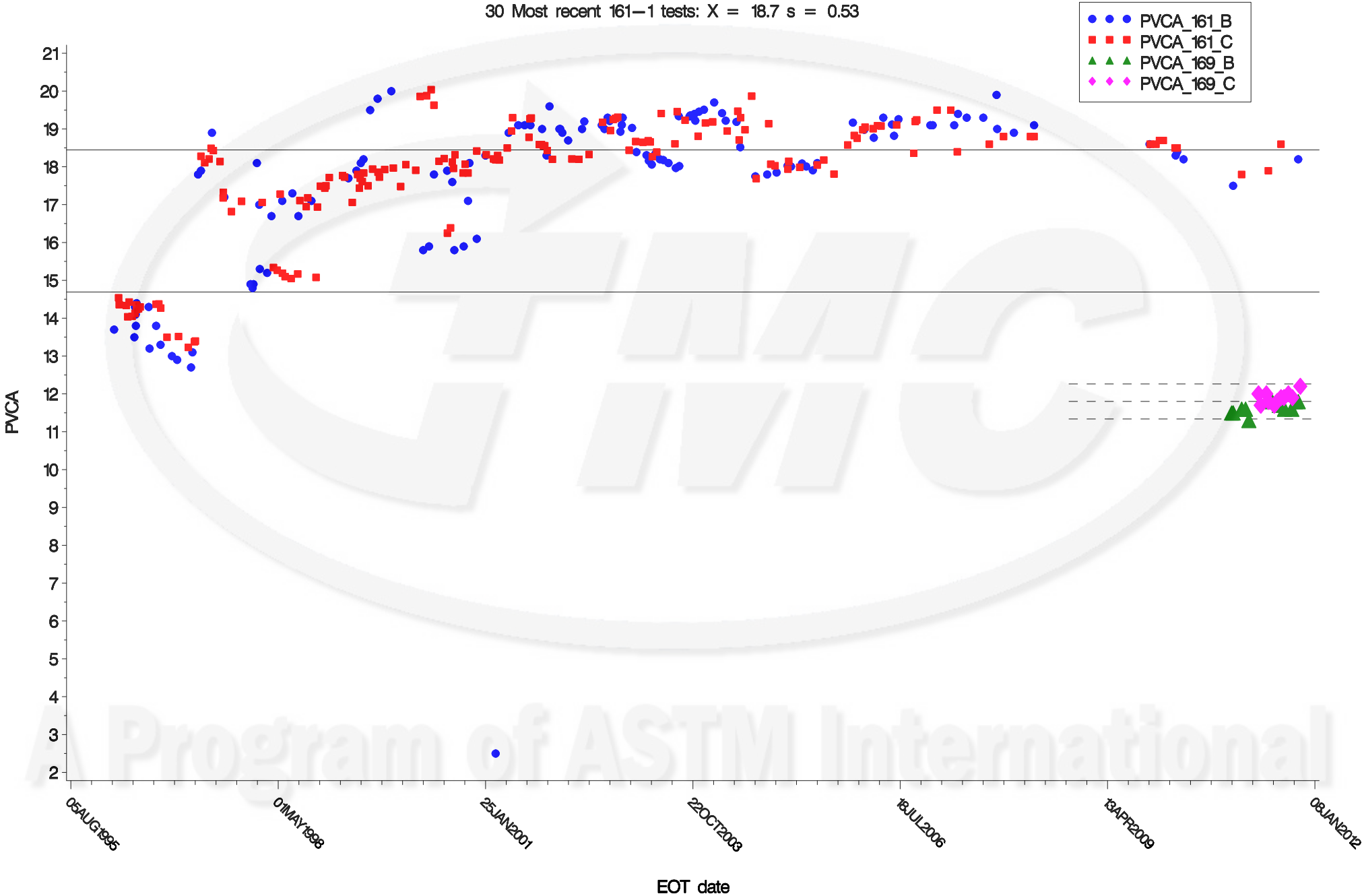
169 Target: $X = -16.2$ $s = 5.37$

30 Most recent 161-1 tests: $X = 10.2$ $s = 6.53$



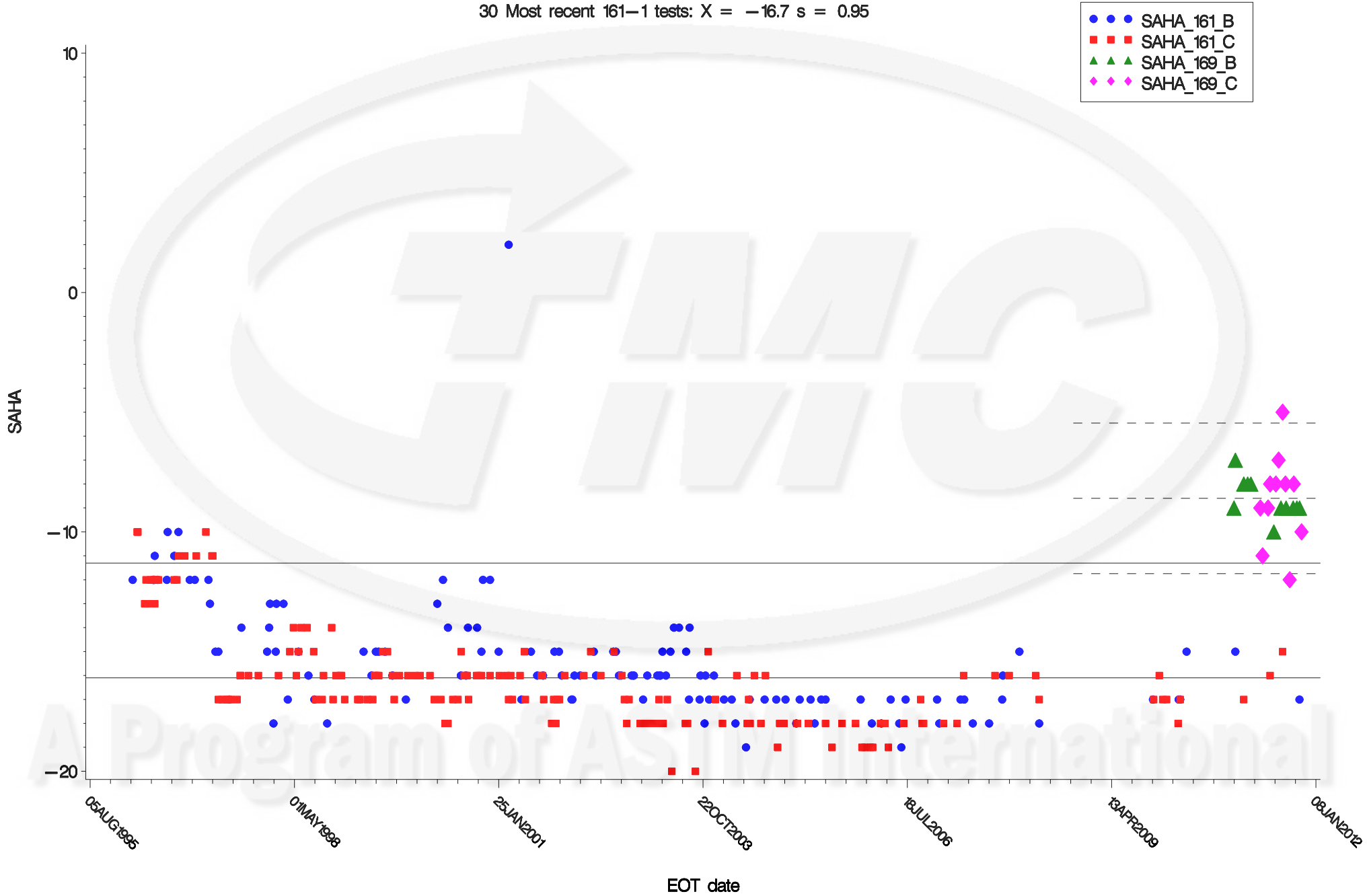
Nitrile Percent Volume Change

161-1 Target: $X = 18.444$ $s = 1.7057$
169 Target: $X = 11.8$ $s = 0.21$
30 Most recent 161-1 tests: $X = 18.7$ $s = 0.53$



Nitrile Points Hardness Change

161-1 Target: $X = -16.1$ $s = 2.18$
169 Target: $X = -8.6$ $s = 1.43$
30 Most recent 161-1 tests: $X = -16.7$ $s = 0.95$

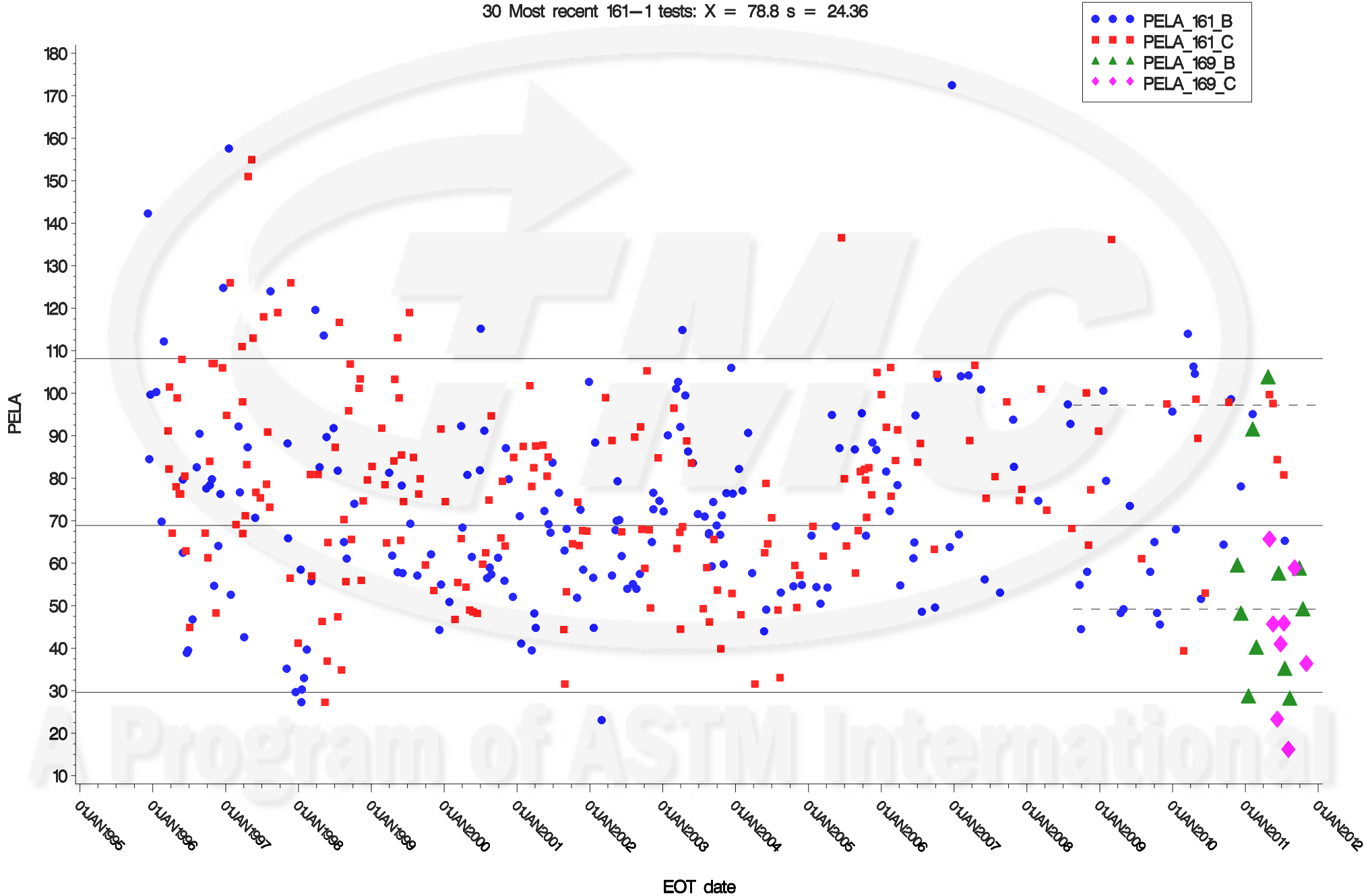


Polyacrylate Percent Elongation

161-1 Target: X = 68.88 s = 17.85

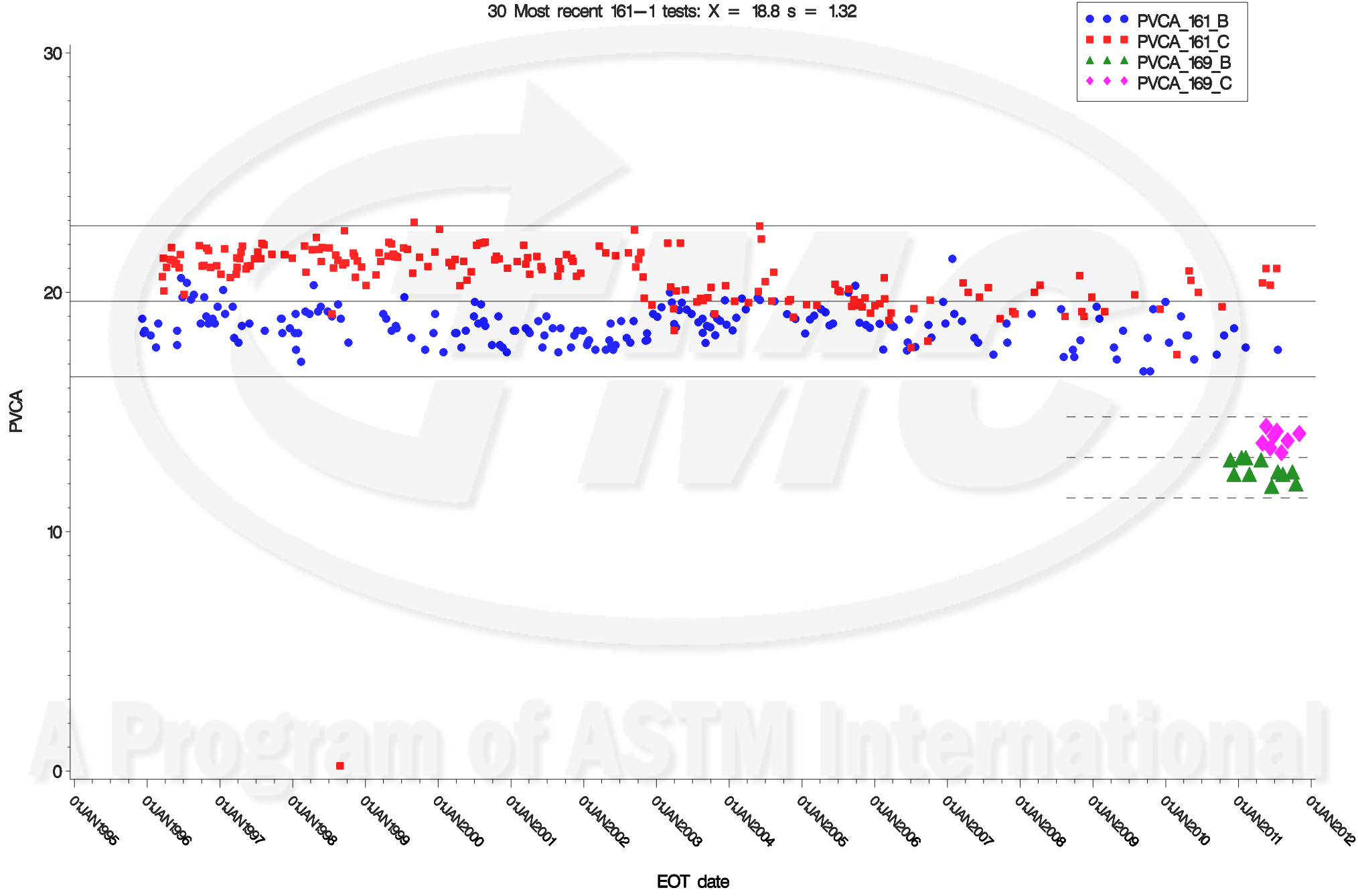
169 Target: X = 49.2 s = 21.82

30 Most recent 161-1 tests: X = 78.8 s = 24.36



Polyacrylate Percent Volume Change

161-1 Target: $X = 19.624$ $s = 1.4348$
169 Target: $X = 13.1$ $s = 0.77$
30 Most recent 161-1 tests: $X = 18.8$ $s = 1.32$

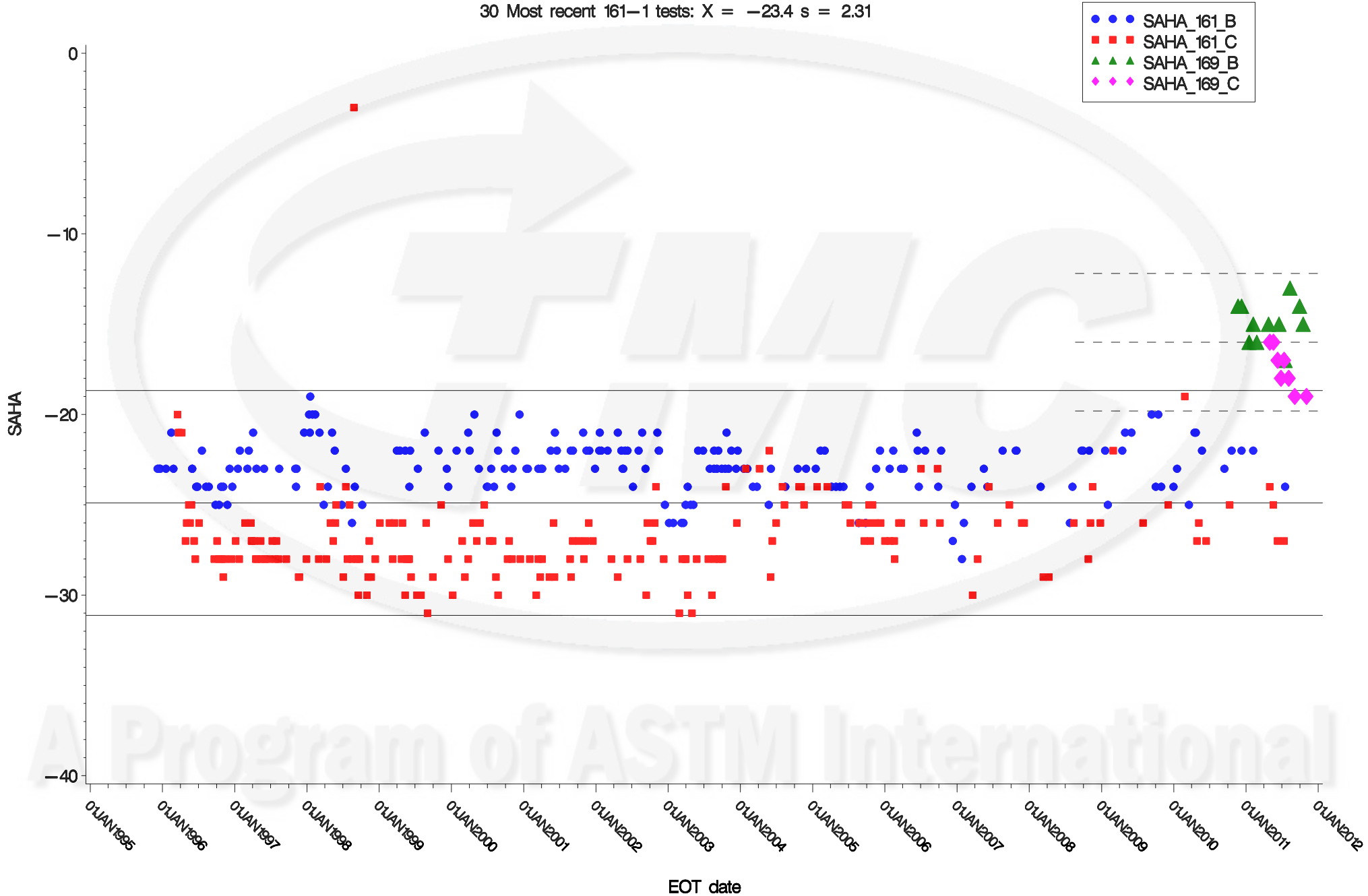


Polyacrylate Points Hardness Change

161-1 Target: $X = -24.9$ $s = 2.83$

169 Target: $X = -16.0$ $s = 1.73$

30 Most recent 161-1 tests: $X = -23.4$ $s = 2.31$



Oil 169 Tests Used in Initial Target Generation

TESTKEY	LAB	ELASTOMER			PELA	SAHA	PVCA
		ELASTOMER	BATCH	LTMSDATE			
77710-OSCTI	B	FL	FL379	20101209	-36.0	1	4.2
79923-OSCTI	B	FL	FL380	20110114	-38.1	0	4.1
79977-OSCTI	C	FL	FL380	20110203	-51.0	1	4.3
79929-OSCTI	B	FL	FL380	20110228	-33.1	0	4.5
79978-OSCTI	C	FL	FL380	20110321	-46.9	0	4.8
79932-OSCTI	B	FL	FL381	20110421	-41.1	0	4.1
79979-OSCTI	C	FL	FL381	20110502	-43.4	0	4.5
79982-OSCTI	C	FL	FL381	20110530	-41.7	0	4.6
79935-OSCTI	B	FL	FL381	20110613	-24.2	-2	4.3
79987-OSCTI	C	FL	FL381	20110613	-40.0	1	4.6
79988-OSCTI	C	FL	FL381	20110627	-37.2	0	4.6
79938-OSCTI	B	FL	FL381	20110715	-36.7	-1	4.4
79991-OSCTI	C	FL	FL382	20110724	-47.5	1	4.5
79941-OSCTI	B	FL	FL382	20110808	-34.8	1	4.2
79995-OSCTI	C	FL	FL382	20110818	-46.1	1	4.6
79998-OSCTI	C	FL	FL382	20110912	-47.8	0	4.5
79945-OSCTI	B	FL	FL382	20111003	-33.1	0	4.2
79948-OSCTI	B	FL	FL382	20111013	-32.7	-1	4.3
77709-OSCTI	B	NI	NI336	20101203	-18.9	-9	11.5
77712-OSCTI	B	NI	NI336	20101210	-19.5	-7	11.5
79925-OSCTI	B	NI	NI336	20110120	-19.6	-8	11.6
79928-OSCTI	B	NI	NI336	20110208	-20.7	-8	11.6
79931-OSCTI	B	NI	NI336	20110224	-20.1	-8	11.3
79975-OSCTI	C	NI	NI336	20110411	-21.8	-9	12.0
79981-OSCTI	C	NI	NI336	20110422	-12.1	-11	11.7
79984-OSCTI	C	NI	NI336	20110519	-22.6	-9	12.0
79985-OSCTI	C	NI	NI336	20110529	-12.5	-8	11.8
79937-OSCTI	B	NI	NI337	20110616	-3.3	-10	11.8
79990-OSCTI	C	NI	NI336	20110626	-22.0	-8	11.7
79993-OSCTI	C	NI	NI337	20110710	-10.1	-7	11.8
79940-OSCTI	B	NI	NI337	20110721	-13.2	-9	11.7
79994-OSCTI	C	NI	NI337	20110729	-20.9	-5	11.9
79997-OSCTI	C	NI	NI337	20110812	-11.5	-8	11.9
79943-OSCTI	B	NI	NI337	20110815	-21.1	-9	11.6
80000-OSCTI	C	NI	NI337	20110902	-16.8	-12	12.0
79944-OSCTI	B	NI	NI337	20110919	-12.4	-9	11.6
80001-OSCTI	C	NI	NI337	20110922	-17.9	-8	11.9
79947-OSCTI	B	NI	NI337	20111007	-19.6	-9	11.8
79950-OSCTI	B	NI	NI337	20111020	-6.9	-9	11.8
80006-OSCTI	C	NI	NI337	20111030	-13.4	-10	12.2

Oil 169 Tests Used in Initial Target Generation

TESTKEY	LAB	ELASTOMER		LTMSDATE	PELA	SAHA	PVCA
		ELASTOMER	BATCH				
77708-OSCTI	B	PA	PA342	20101122	59.6	-14	13.0
77711-OSCTI	B	PA	PA342	20101210	48.3	-14	12.4
79924-OSCTI	B	PA	PA342	20110117	28.8	-16	13.1
79927-OSCTI	B	PA	PA342	20110207	91.6	-15	13.1
79930-OSCTI	B	PA	PA342	20110225	40.3	-16	12.4
79933-OSCTI	B	PA	PA343	20110425	103.9	-15	13.0
79980-OSCTI	C	PA	PA343	20110502	65.7	-16	13.7
79983-OSCTI	C	PA	PA343	20110520	45.7	-16	14.4
79986-OSCTI	C	PA	PA343	20110610	23.3	-17	13.5
79936-OSCTI	B	PA	PA343	20110617	57.7	-15	11.9
79989-OSCTI	C	PA	PA343	20110627	41.0	-18	14.0
79992-OSCTI	C	PA	PA343	20110713	45.9	-17	14.2
79939-OSCTI	B	PA	PA343	20110718	35.3	-17	12.5
79996-OSCTI	C	PA	PA343	20110805	16.2	-18	13.3
79942-OSCTI	B	PA	PA344	20110812	28.3	-13	12.4
79999-OSCTI	C	PA	PA343	20110905	58.9	-19	13.8
79946-OSCTI	B	PA	PA344	20110929	58.9	-14	12.5
79949-OSCTI	B	PA	PA344	20111017	49.3	-15	12.0
80004-OSCTI	C	PA	PA344	20111103	36.4	-19	14.1