

CST Test Log

Project: 3551

Customer: WHOI

Low Tension: 200

Rate: 92/TC

Sample: 4x6 COND. Bun.

Operator: JAG/HAH

Max Tension: 5,000

Date/ Time	Cycles	Tension, lb	Xhead Position, in	Torque, in-lb	Pressure, psi	DCR, ohms	Comments																	
15 NOV 11																								
1011	0	200	0	0	0	34.95	Start DAS File #1																	
		Measured @ 200 lbs																						
		(20.5)	(40.5)	(60)	(80)	(100)	(120)	(141)	(162)	(183)	(205)	(226.5)	(248.5)	(270)	(292)	(313)	(333.5)	(354.5)	(374)	(395)	(415)	(435)	(454.5)	(455.5)
1034	1	1,000	36.25	20	0.5	35.00	Measurements																	
		(20.5)	(40.5)	(60.5)	(81)	(101)	(122.5)	(145)	(169.5)	(197)	(228.5)	(266)	(304.5)	(341.5)	(373)	(401)	(426)	(448)	(469)	(489.5)	(510)	(530)	(550)	(561)
1045	1	2,000	60	100	95.5	35																		
		(20.5)	(41)	(61)	(81.5)	(102)	(124)	(149)	(177)	(209.5)	(247)	(292)	(339)	(384)	(442)	(454)	(482)	(507)	(528)	(549.5)	(570)	(590)	(610)	(621)
1054	1	3,000	75	200	220	35	Measurement																	
		(21)	(41)	(61.5)	(82)	(103.5)	(126.5)	(135)	(184)	(218)	(259)	(311)	(363)	(414)	(459.5)	(490.5)	(520.5)	(547)	(569)	(591)	(612)	(632.5)	(652.5)	(663.5)
1110	1	4,000	87	220	321	35	Measurement																	
		(20.5)	(41.5)	(62)	(83)	(109)	(128.5)	(156)	(188)	(224)	(297)	(323)	(378.5)	(433)	(477.5)	(513)	(544)	(572)	(595)	(617)	(638)	(659)	(679)	(690)
1122	1	5,000	96	240	408	35	Measurement																	
		(21)	(41.5)	(62.5)	(84)	(106)	(130)	(158.5)	(191)	(228.5)	(274)	(333)	(391)	(448.5)	(496)	(534)	(567)	(599)	(619)	(644)	(662)	(684)	(704)	(719)

CST Test Log

Project: 3551

Customer: WHOI

Low Tension: 200

Rate: —

Sample: 4X6 cond bund

Operator: HAH

Max Tension: 5,000

Date/ Time	Cycles	Tension, lb	Xhead Position, in	Torque, in-lb	Pressure, psi	DCR, ohms	Comments
15 Nov 11							
1129	1	4,000	99	200	365	35	
							(21)(41.5)(62)(83.5)(105.5)(129.5)(158)(161)(227.5)(273)(332)(390)(448)(497)(538)(570.5)(559)(621.5) (643.5)(665)(686)(706)(717)
1134	1	3,000	96	160	293	35	
							(21)(40.5)(62)(83.5)(105)(129)(156.5)(189)(225)(269.5)(328)(385)(442)(491)(531)(562.5)(591)(613.5)(635.5) (659.5)(677.5)(698)(708.5)
1140	1	2,000	91	100	193	35	
							(21)(41.5)(62)(83)(104.5)(128)(155)(186)(221)(265)(322)(377.5)(433.5)(481)(520)(551)(578)(600.5)(622) (643)(663.5)(684)(694.5)
1145	1	1,000	80	50	62	35	
							(20.5)(41)(61)(82)(103)(125.5)(151)(180)(213.5)(254)(308)(361)(413)(458)(494.5)(523)(548)(570)(591) (611.5)(631.5)(652)(662.5)
1153	1	200	27	0	0	35	
1250	✓	✓	16.8	0	0	35	Free swivel
							(20.5)(40.5)(60)(80.5)(101)(122)(143.5)(166)(190)(215)(244)(273)(301)(327)(351.5)(374)(395.5)(416)(436.5)(456.5) (476.5)(496)(507)

CST Test Log

Project: 3551 Customer: WHOI Low Tension: 200 Rate: —
 Sample: 4x6 COND. Operator: HAIT Max Tension: 5,000

Date/ Time	Cycles	Tension, lb	Xhead Position, in	Rotation, deg	Pressure, psi	DCR, ohms	Comments
15 Nov 11							
1318	2	1,000	63	21	20	35	
							(20.5)(40.5)(61)(81.5)(102)(124)(148)(175)(206)(243.5)(291.5)(339.5)(386.5)(427)(460.5)(487.5)(512)(533)(553.5)(574)(594.5)(615)(625)
1326	2	2,000	79.3	230	153	35	
							(20)(61)(82)(103.5)(126)(152)(182)(215)(257)(310)(363)(415)(461)(498)(527.5)(553.5)(575.5)(595.5)(617.5)(638)(658)(669.5)
1334	2	3,000	90.36	390	262	35	
							(20.5)(41)(61.5)(83)(104)(127.5)(154.5)(186.5)(222)(266)(322)(378)(433)(482)(521)(552)(580)(602)(624)(645)(665.5)(686)(697)
1342	2	4,000	97.30	505	346	35	
							(20.5)(41)(62)(83.5)(105)(129)(157)(190)(226)(271)(330)(388)(445)(496)(537)(569)(597.5)(620)(642)(663)(684)(704.5)(715.5)
1350	2	5,000	104	660	423	35	
							(21)(41.5)(62)(84)(106)(130)(159)(192.5)(229.5)(277)(336.5)(396.5)(455)(508.5)(552)(585)(614)(637)(659)(681)(702)(722)(733.5)

CST Test Log

Project: 3551 Customer: WHOI Low Tension: 200 Rate: —
 Sample: 4x6 COND. Operator: HAH Max Tension: 5k

Date/ Time	Cycles	Tension, lb	Xhead Position, in	Rotation, deg	Pressure, psi	DCR, ohms	Comments
15 Nov 11							
1357	2	4,000	104.5	719	379	35	
							(21)(41.5)(62.5)(84)(106)(130)(158.5)(191.5)(228.5)(276)(335)(395)(453.5)(506.5)(550)(583)(612)(635)(657)(678)(699)(720)(730)
1404	2	3,000	101.4	695	302	35	
							(21)(41.5)(62)(83)(105)(129)(157)(189.5)(226)(272.5)(331)(390)(448)(500.5)(543.5)(576)(604)(626.5)(648.5)(670)(691)(711)(722)
1411	2	2,000	96.36	624	198	35	
							(21)(41)(62)(83)(105)(128)(155.5)(187)(222)(267)(325)(383)(439)(490.5)(533)(564)(592)(614)(635.5)(656.5)(677)(697.5)(708)
1415	2	1,000	85	542	73	35	
							(20)(41)(61)(82)(103.5)(126)(151.5)(181)(214)(256)(311.5)(366.5)(420)(468.5)(508)(537)(563)(584)(606)(626.5)(647)(667)(678)
1421	2	200	30	169	0	35	
							(20)(40.5)(60.5)(81)(101.5)(123)(145)(169)(194)(222)(255)(288)(320)(350)(377)(400)(423)(443)(463.5)(484)(503)(523.5)(534)

CST Test Log

Project: 3551

Customer: WHOI

Low Tension: 1,000

Rate: 10 sec/cycle

Sample: 4x6 COND.

Operator: HAIT

Max Tension: 3,000

Date/Time	Cycles	Tension, lb	Xhead Position, in	Rotation, deg	Pressure, psi	DCR, ohms	Comments
15 NOV 11				(+360)			
1435	30	1K-3K	84-95	—	63-290	35.1	Start DAS File #2
1448	90	500-3K	72-95	—	10-290	35.1	12 sec/cycle
1555	433	✓/✓	75/95	140°	✓/✓	✓	OK MAIN RAM = 28.5"
1632	627	✓	74/96	✓	10/300	35.5	OK
1731	944	500/3K	76/96	+450/+570°	10/300	35.55	OK RAM = 28 5/8" CHG
	BURST TO 20 @ 5 Hz.						
16 NOV 11							
845	5600	500	78	550	0	35.35	End of CST
	(20)(40.5)(61)(81.5)(102.5)(125)(150)(178)(209)(250)(302)(354)(404)(450)(493)(521)(546)(567)						(588)(609)(629)(649)(660)
849	5600	200	52	507	0	35.35	
904	✓	✓	39	347	0	35.27	
	(20.5)(40.5)(60.5)(81)(102)(123)(146)(171)(197)(229)(265.5)(301)(335.5)(369)(402.5)(427)(450.5)(471)						(492)(512.5)(532.5)(552.5)(563)
911	5600	1,000	82	366	6	35.26	
	(21)(41)(61)(81.5)(102.5)(125)(151)(180)(213)(256)(309)(361)(412)(461)(505)(534)(560.5)(582)(603)(624)(644)						(664.5)(675)

CST Test Log

Project: 3551 Customer: WHOI Low Tension: 200 Rate: —
 Sample: 4x4 COND. Operator: HAT Max Tension: 5,000

Date/ Time	Cycles	Tension, lb	Xhead Position, in	Rotation deg	Pressure, psi	DCR, ohms	Comments
16 NOV 11							
917	5600	2,000	97	458	17	35.25	
							(20)(41)(61)(82)(103.5)(126.5)(154)(186)(221.5)(267)(225)(392.5)(437.5)(490.5)(538)(570)(598)(620)
							(641.5)(662.5)(682.5)(703)(714)
922	5600	3,000	105	712	17.7	35.23	
							(20.5)(41)(61.5)(82.5)(104)(128)(156)(199)(226)(274)(333)(392)(450.5)(504.5)(554.5)(587)(616)(638)
							(660)(681)(701.5)(721.5)(732.5)
928	5600	4,000	110	793	17.9	35.23	
							(20.5)(41)(61.5)(83)(104.5)(129)(158)(192)(229.5)(278.5)(339.5)(399)(459)(515)(566)(600)(629.5)
							(652.5)(674)(695)(716)(736)(747)
934	5600	5,000	116	950	25.7	35.22	
							(21)(41)(62)(83.5)(105.5)(130)(160)(194.5)(232.5)(283)(345)(406)(467.5)(526)(580)(614)(644)(668)
							(689)(711)(731.5)(752)(763)
941	5600	4,000	115	1020	30.5	35.20	
							(21)(41)(61.5)(83)(105)(130)(159.5)(194)(231)(281)(343)(404)(465)(523)(576)(610)(640)(663)(685)(706.5)
							(727)(747)(758)
947	5600	3,000	113	1017	26.7	35.17	
							(21)(41)(61.5)(83)(105)(129)(158.5)(192)(229)(279)(340)(400)(460)(518)(570)(604)(633)(656)(678)(669.5)
							(720)(740)(751)

CST Test Log

Project: 3551 Customer: WHOI Low Tension: 200 Rate: —
 Sample: 4x6 COND. Operator: HAT Max Tension: 5k

Date/ Time	Cycles	Tension, lb	Xhead Position, in	Rotation, deg	Pressure, psi	DCR, ohms	Comments
16 Nov 11							
957	5600	2,000	107.5	926	9.5	35.16	
							(20)(41)(61)(82.5)(104)(128)(156.5)(190)(225)(274)(334)(392)(452)(508)(559)(592)(621)(643.5)(665)(686)(707)(727)(738)
1003	5600	1,000	98	820	5.4	35.15	
							(20.5)(40.5)(61)(82)(103)(126)(153)(184)(219)(265)(322)(378)(435)(488.5)(537)(568)(595.5)(617)(638)(659)(680)(700)(710)
1022	5600	200	40.90	342	0	35.11	
							(20.5)(40.5)(60.5)(81)(102)(123)(146)(171)(198)(229.5)(266.5)(303)(338)(373)(406.5)(431)(454.5)(475)(496)(517)(537)(557)(567.5)
Diameters							
20 = 6.27"	180 = 2.75"	340 = 3.41"					
40 = 6.44"	200 = 2.34"	360 = 3.63"					
60 = 4.75"	220 = 2.30"	380 = 3.85"					
80 = 3.89"	240 = 2.36"	400 = 5.19"					
100 = 3.56"	260 = 2.42"	420 = 6.64"					
120 = 3.38"	280 = 2.51"	440 = 5.86					
140 = 3.14"	300 = 2.89"						
160 = 2.94"	320 = 3.18"						

CST Test Log

Project: 3551 Customer: WHOI Low Tension: 200 Rate: —
 Sample: 4x6 COND. Operator: HAH Max Tension: 5K

Date/ Time	Cycles	Tension, lb	Xhead Position, in	Rotation, deg	Pressure, psi	DCR, ohms	Comments
16 NOV 11							
1036	5600	1,000	84	367	3	35	
							(20.5)(41)(61)(82)(103)(125)(151)(180)(213.5)(257)(310)(363)(414)(465)(510)(539.5)(565) (587)(608)(629)(649)(669)(680)
1042	5600	2,000	100	657	11	35	
							(21)(41)(61)(82)(103.5)(127)(155)(186.5)(222)(269)(327)(384)(441)(496)(545)(557)(605)(627) (649)(670)(690)(710)(721)
1047	5600	3,000	108	800	14	35	
							(20.5)(41)(61)(83)(104)(128)(157)(190)(227)(276)(336)(394)(454)(510)(562)(595)(624)(647)(668) (689)(710)(730)(741)
1053	5600	4,000	113	890	16	35	
							(20.5)(41)(61.5)(83)(105)(129.5)(159)(193)(230.5)(280)(342)(402)(462.5)(521)(564)(608)(638)(660.5) (683)(704)(724.5)(744.5)(755.5)
1104	5600	5,000	118	1025	19	35	
							(21)(41)(61.5)(83.5)(105)(130)(160)(194.5)(232.5)(284)(346)(407)(468)(528)(582)(616)(649)(670)(692) (713)(734)(754)(765)
1110	5600	4,000	116	1040	20.5	35	
							(21)(41)(61.5)(83)(105)(129.5)(159.5)(194)(231)(282)(343.5)(404)(465)(524)(578)(612)(642)(665)(687) (708.5)(729)(749.5)(760)

CST Test Log

Project: 3551 Customer: WHOI Low Tension: 200 Rate: —
 Sample: 4x6 cond band Operator: HAIT Max Tension: 5

Date/ Time	Cycles	Tension, lb	Xhead Position, in	Rotation, deg	Pressure, psi	DCR, ohms	Comments
16 Nov 11							
1118	5600	3,000	113	1040	19	35	
							(21)(41)(61.5)(83)(104.5)(129)(158.5)(192)(229)(279)(340)(400)(460)(518.5)(571)(605)(635)(658)(679)(701)(721)(741.5)(751.5)
1123	5600	2,000	109	980	11	35	
							(20.5)(41)(61.5)(83)(104)(128.5)(157)(190)(226)(274.5)(335)(394)(453)(510)(562)(595)(624)(646.5)(668)(689)(709.5)(729.5)(740.5)
1129	5600	1,000	97	856	4	35	
							(20)(40.5)(61)(82)(103)(126)(153)(184.5)(219)(265)(322.5)(378)(434.5)(488.5)(538)(558.5)(596)(618)(639.5)(660)(680.5)(700.5)(711.5)
1140	5600	200	41	480	-2	35	
							(20)(40)(60)(81)(101.5)(123)(146.5)(171)(198)(229.5)(266)(302.5)(337)(372.5)(406)(431)(454)(475)(496)(516)(536)(556)(567)
17 Nov 11							
1438	0	500	Xhead 50	200cm 3.95	240cm 9.47	10	DAS File #3
1546	539	300	51	3.90	9.81		End