



Please Return Gauges and Notes To QC Department

Willow Creek Test Record Sheet

This Side Is To Be Filled Out Completely

Gas/Oil Company: CIVITAS Job Location: RINN VALLEY
 Test Location: RINN VALLEY (LONGMONT)
 What Are You Testing? (8) FLOW LINES
 Weather Conditions: INTO THE NIGHT LOW 29 HI 51

Test Needs To Be Started on a 0 or 5/ Example 10:00 am or 10:15 am

Test Start: Date: 2-13-23 Time: 7:30 PM
 Test End: Date: 2-14-23 Time: 3:45 AM
 Supervisor Name: ALFREDO PRIETO Data Recorded By: ALFREDO PRIETO
 Test Witnessed By: _____ Test Witnessed By: GERALD HARRISON

Minimum PSI: 3710 Target PSI: 3735 Maximum PSI: 3760

Gauge Information

Gauge Number: NVISION #6 Gauge Calibration Due Date: _____
 Is The Gauge In Good Working Order? YES

Hotsy/ Testing Equipment Check List/ UNIT # _____

Hotsy Oil: Tank Lid: Hotsy Wand:
 Hotsy Hose Condition: Hotsy Trailer Condition:
 Fittings Put Back?: Hotsy Winterized?:
 Hotsy Comments: LOW ON ANTI-FREEZE
 Jumper Hoses Condition: Jumper Hoses Ends Protected?:
 All Jumper Hose Fittings Cleaned Up And Put Away?:
 Jumper Hose & Fittings Comments:



Willow Creek Test Record Sheet

Stop Is The Front Of This Completely Filled Out?????

Time	Pressure	P. Temp	A. Temp	Remarks	Time	Pressure	P. Temp	A. Temp	Remarks
3:10	0	45	51	RAN 0	12:45	3729	32	30	TEMP DROP
3:15	0	45	51	UP TO STEP 1	1:00	3729	32.25	30	HOLDING
5:05	111	44	46	HOLD	1:15	3729	32.02	30	HOLDING
5:43	111	42	43	UP TO 50%	1:30	3728	31.79	30	TEMP DROP
6:20	1854	45	41	HOLD 15 MIN	1:45	3728	31.77	29	HOLDING
6:35	1852	47	41	UP TO 80%	2:00	3728	31.59	29	HOLDING
6:47	2993	45	40	HOLD 30 MIN	2:15	3727	31.55	29	SLOW DROP
7:17	2978	42	40	UP TO TEST	2:30	3727	31.42	29	HOLDING
7:30	3750	43	39	START TEST	2:45	3727	31.24	30	HOLDING
7:45	3724	42	39	TEMP DROP	3:00	3726	31.24	30	DROPPED 18"
8:00	3758	42	39	BUMP DUE TEMP	3:15	3726	31.04	30	HOLDING
8:15	3737	40	38	TEMP DROP	3:30	3726	31.08	30	END TEST
8:30	3736	39	37	COVERED PIPE	3:45	3726	31.01	30	EXTRA 15 MIN
8:45	3736	38.44	37	HOLDING	4:40	0	34	30	RAN 0
9:00	3735	37	36	SLOW DROP					
9:15	3735	37	36	HOLDING					
9:30	3734	36	35	SLOW DROP					
9:45	3734	36	35	HOLDING					
10:00	3733	36	35	TEMP DROPPED					
10:15	3733	35	35	HOLDING					
10:30	3733	35	35	HOLDING					
10:45	3732	34	35	SLOW DROP					
11:00	3732	34.32	35	HOLDING					
11:15	3721	34.04	34	TEMP DROP					
11:30	3731	33	34	HOLDING					
11:45	3731	33	33	HOLDING					
12:00	3730	33	33	SLOW DROP					
12:15	3730	32.85	32	TEMP DROP					
12:30	3730	32.68	32	HOLDING					

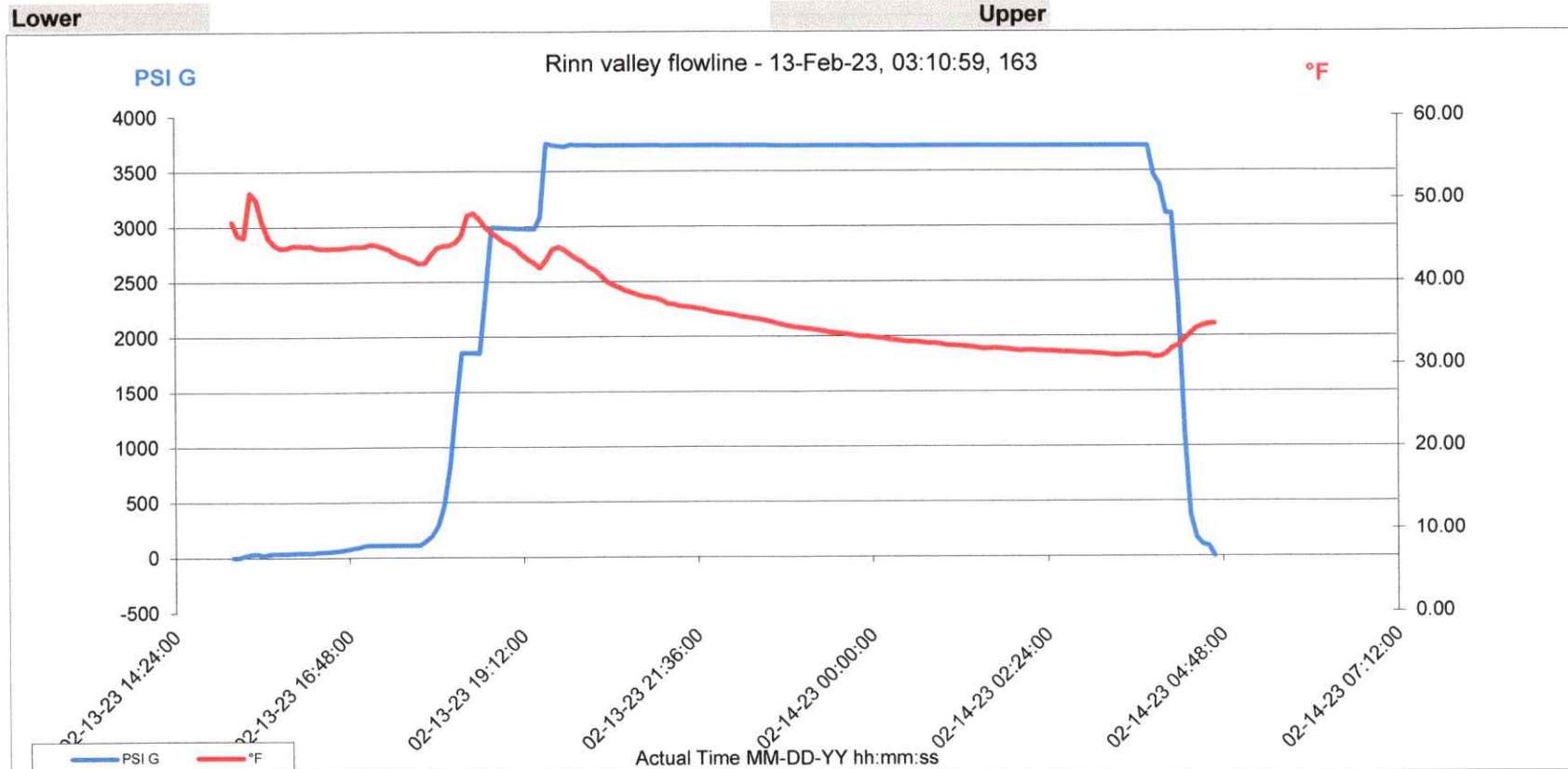
COMMENTS

Civitas Resources

Rinn Valley Flow Lines Pressure Test

Data Collection Report

	Chassis	Left Scale	Right Scale
Serial Number	217678	212062	212143
Datatype		Lower	Upper
Units		PSI G	°F



Tested By: Alfredo Prieto

	Chassis	Lower Module	Upper Module	BARO Module	Left Scale	Right Scale
Serial Number	217678	212062	212143		212062	212143
Model	NV	10KPSI	RTD100			
Message Store						
Userspan		1.00000	1.00000			
Offset						
Datatype					Lower	Upper
Units		PSI G	°F		PSI G	°F
Tare						
Average						
User Factor						
User Offset						
User Resolution						
Firmware Version	R080016	R090009	R100006			
Calibration Due		16-Jan-24	18-Jan-24			
Run Index	14					
Run Start Time			13-Feb-23/15:10:59			
Run Duration			13 hours 30 minutes			
Run Tag			Rinn valley flowline			
Logging Interval	300.0					



Data Points				
Point #	Time	Left - PSI G	Right - °F	

1	02-13-23 15:10:59	0	47.23	
2	02-13-23 15:15:59	0	45.59	
3	02-13-23 15:20:59	19	45.37	
4	02-13-23 15:25:59	32	50.75	
5	02-13-23 15:30:59	33	49.91	
6	02-13-23 15:35:59	20	47.23	
7	02-13-23 15:40:59	33	45.27	
8	02-13-23 15:45:59	35	44.46	
9	02-13-23 15:50:59	36	44.08	
10	02-13-23 15:55:59	37	44.13	

11	02-13-23 16:00:59	39	44.35
12	02-13-23 16:05:59	41	44.37
13	02-13-23 16:10:59	43	44.33
14	02-13-23 16:15:59	45	44.32
15	02-13-23 16:20:59	48	44.11
16	02-13-23 16:25:59	51	44.06
17	02-13-23 16:30:59	55	44.06
18	02-13-23 16:35:59	59	44.10
19	02-13-23 16:40:59	65	44.09
20	02-13-23 16:45:59	72	44.16
21	02-13-23 16:50:59	81	44.27
22	02-13-23 16:55:59	92	44.25
23	02-13-23 17:00:59	108	44.27
24	02-13-23 17:05:59	111	44.48
25	02-13-23 17:10:59	111	44.44
26	02-13-23 17:15:59	111	44.20
27	02-13-23 17:20:59	111	43.90
28	02-13-23 17:25:59	111	43.49
29	02-13-23 17:30:59	111	43.10
30	02-13-23 17:35:59	111	42.92
31	02-13-23 17:40:59	111	42.56
32	02-13-23 17:45:59	111	42.19
33	02-13-23 17:50:59	149	42.30
34	02-13-23 17:55:59	197	43.38
35	02-13-23 18:00:59	286	44.13
36	02-13-23 18:05:59	467	44.33
37	02-13-23 18:10:59	828	44.40
38	02-13-23 18:15:59	1375	44.76
39	02-13-23 18:20:59	1854	45.57
40	02-13-23 18:25:59	1853	48.03
41	02-13-23 18:30:59	1853	48.26
42	02-13-23 18:35:59	1852	47.56
43	02-13-23 18:40:59	2420	46.56
44	02-13-23 18:45:59	2992	45.95
45	02-13-23 18:50:59	2990	45.42
46	02-13-23 18:55:59	2987	44.84
47	02-13-23 19:00:59	2984	44.50

48	02-13-23 19:05:59	2982	44.01
49	02-13-23 19:10:59	2981	43.32
50	02-13-23 19:15:59	2979	42.70
51	02-13-23 19:20:59	2979	42.28
52	02-13-23 19:25:59	3084	41.68
53	02-13-23 19:30:59	3751	42.65
54	02-13-23 19:35:59	3740	43.91
55	02-13-23 19:40:59	3731	44.23
56	02-13-23 19:45:59	3724	43.85
57	02-13-23 19:50:59	3745	43.27
58	02-13-23 19:55:59	3738	42.84
59	02-13-23 20:00:59	3738	42.43
60	02-13-23 20:05:59	3738	41.82
61	02-13-23 20:10:59	3737	41.36
62	02-13-23 20:15:59	3737	40.78
63	02-13-23 20:20:59	3737	40.03
64	02-13-23 20:25:59	3737	39.59
65	02-13-23 20:30:59	3736	39.27
66	02-13-23 20:35:59	3736	38.95
67	02-13-23 20:40:59	3736	38.66
68	02-13-23 20:45:59	3736	38.43
69	02-13-23 20:50:59	3736	38.20
70	02-13-23 20:55:59	3736	38.10
71	02-13-23 21:00:59	3736	38.00
72	02-13-23 21:05:59	3735	37.73
73	02-13-23 21:10:59	3735	37.32
74	02-13-23 21:15:59	3735	37.23
75	02-13-23 21:20:59	3735	37.00
76	02-13-23 21:25:59	3735	36.93
77	02-13-23 21:30:59	3734	36.88
78	02-13-23 21:35:59	3734	36.72
79	02-13-23 21:40:59	3734	36.63
80	02-13-23 21:45:59	3734	36.40
81	02-13-23 21:50:59	3734	36.25
82	02-13-23 21:55:59	3734	36.14
83	02-13-23 22:00:59	3734	36.07
84	02-13-23 22:05:59	3733	35.91

85	02-13-23 22:10:59	3733	35.75
86	02-13-23 22:15:59	3733	35.66
87	02-13-23 22:20:59	3733	35.53
88	02-13-23 22:25:59	3733	35.40
89	02-13-23 22:30:59	3733	35.29
90	02-13-23 22:35:59	3732	35.11
91	02-13-23 22:40:59	3732	34.86
92	02-13-23 22:45:59	3732	34.73
93	02-13-23 22:50:59	3732	34.56
94	02-13-23 22:55:59	3732	34.46
95	02-13-23 23:00:59	3732	34.33
96	02-13-23 23:05:59	3732	34.26
97	02-13-23 23:10:59	3732	34.15
98	02-13-23 23:15:59	3731	34.05
99	02-13-23 23:20:59	3731	33.93
100	02-13-23 23:25:59	3731	33.78
101	02-13-23 23:30:59	3731	33.68
102	02-13-23 23:35:59	3731	33.61
103	02-13-23 23:40:59	3731	33.54
104	02-13-23 23:45:59	3731	33.36
105	02-13-23 23:50:59	3731	33.31
106	02-13-23 23:55:59	3731	33.31
107	02-14-23 0:00:59	3730	33.20
108	02-14-23 0:05:59	3730	33.09
109	02-14-23 0:10:59	3730	33.00
110	02-14-23 0:15:59	3730	32.88
111	02-14-23 0:20:59	3730	32.83
112	02-14-23 0:25:59	3730	32.71
113	02-14-23 0:30:59	3730	32.68
114	02-14-23 0:35:59	3729	32.67
115	02-14-23 0:40:59	3729	32.54
116	02-14-23 0:45:59	3729	32.46
117	02-14-23 0:50:59	3729	32.45
118	02-14-23 0:55:59	3729	32.35
119	02-14-23 1:00:59	3729	32.24
120	02-14-23 1:05:59	3729	32.18
121	02-14-23 1:10:59	3729	32.16

122	02-14-23 1:15:59	3729	32.05
123	02-14-23 1:20:59	3729	31.99
124	02-14-23 1:25:59	3728	31.90
125	02-14-23 1:30:59	3728	31.79
126	02-14-23 1:35:59	3728	31.82
127	02-14-23 1:40:59	3728	31.85
128	02-14-23 1:45:59	3728	31.78
129	02-14-23 1:50:59	3728	31.75
130	02-14-23 1:55:59	3728	31.66
131	02-14-23 2:00:59	3728	31.59
132	02-14-23 2:05:59	3728	31.60
133	02-14-23 2:10:59	3728	31.61
134	02-14-23 2:15:59	3727	31.58
135	02-14-23 2:20:59	3727	31.49
136	02-14-23 2:25:59	3727	31.48
137	02-14-23 2:30:59	3727	31.44
138	02-14-23 2:35:59	3727	31.38
139	02-14-23 2:40:59	3727	31.38
140	02-14-23 2:45:59	3727	31.35
141	02-14-23 2:50:59	3727	31.28
142	02-14-23 2:55:59	3727	31.28
143	02-14-23 3:00:59	3727	31.25
144	02-14-23 3:05:59	3726	31.17
145	02-14-23 3:10:59	3726	31.13
146	02-14-23 3:15:59	3726	31.05
147	02-14-23 3:20:59	3726	31.00
148	02-14-23 3:25:59	3726	30.99
149	02-14-23 3:30:59	3726	31.08
150	02-14-23 3:35:59	3726	31.11
151	02-14-23 3:40:59	3726	31.07
152	02-14-23 3:45:59	3726	31.03
153	02-14-23 3:50:59	3462	30.76
154	02-14-23 3:55:59	3373	30.81
155	02-14-23 4:00:59	3115	31.12
156	02-14-23 4:05:59	3115	31.83
157	02-14-23 4:10:59	2326	32.17
158	02-14-23 4:15:59	1150	32.88

159	02-14-23 4:20:59	376	33.54
160	02-14-23 4:25:59	166	34.21
161	02-14-23 4:30:59	107	34.54
162	02-14-23 4:35:59	91	34.74
163	02-14-23 4:40:59	-1	34.76



7200 E. Dry Creek Rd, STE C-102, Centennial, CO 80112
Ph. 303-804-0667 Cal.Lab@Apex-Instruments.com

Calibration Certificate

nVision 6

Certificate Number: 230244

Customer:

Pipeline Supply & Service
Evans, CO

Manufacturer: Crystal Engineering
Model Number: nVision 10,000 psi
Serial Number: 212062
Description: Pressure Module
Procedure: CI-001
Calibrated To: Manufacturer's Specifications
Technician: Ben Campbell

Calibration Date: 1/16/2023
Due Date: 1/16/2024
As Found: In Tolerance
As Left: As Found
Temperature: 72.2 F
Humidity: 21.1 %
Issue Date: 1/16/2023

Tolerance Specs:

0 to 30% of FS: +/- 0.015% of FS
30% to 110% of FS: +/- 0.05% of Rdg

Technician Notes:

As Left Userspan: 1.00000
R0: 100.000

Approved Signatory: Ben Campbell

Apex Instruments certifies that the instrument listed above meets the specifications of the manufacturer at the completion of its calibration. The calibrations within the certificate are traceable through NIST or another National Metrology Institute to the International System of Units (SI).

Methods used are in accordance with the procedure listed above. This calibration is a direct comparison of the unit under test to the listed reference standards and did not involve any sampling plans to complete. No allowance has been made for the instability of the test device due to use, time, etc. Such allowances would be made by the customer as needed.

Unless otherwise contractually specified, a binary decision rule, utilizing simple acceptance, and simple rejection criteria will be used for the determination of compliance. When compliance statements are present, they are reported without factoring in the effects of uncertainty and the limits are defined by the manufacturer's stated accuracy.

This certificate does not guarantee the continued performance of the instrument listed above. Any modifications or services performed hereafter may void this certificate.

This certificate applies only to the item listed above and is not to be reproduced other than in full, except with prior written approval from Apex Instruments Inc.



APX10790

Standards Used

Description	Model Number	Serial Number	Calibration Date	Due Date	ID
Electronic Deadweight Tester	RPM4-E-DWT A100M/A10M	1709	8/31/2022	8/31/2023	APX00024
Temp / RH Datalogger	UX100-011	21284718	9/26/2022	9/26/2023	APX09582

Compass Import

Gauge Pressure

Test Description	Nominal	As Found - As Left	Tolerance (+/-)	UUT Error	Status	Pass
0	-0.01 psi	0.0 psi	1.5 psi	0.0 psi	Pass	
2000	1999.99 psi	2000.0 psi	1.5 psi	0.0 psi	Pass	
4000	3999.84 psi	4000.0 psi	2.0 psi	0.2 psi	Pass	
6000	5999.87 psi	6000.0 psi	3.0 psi	0.1 psi	Pass	
8000	7999.94 psi	7999.8 psi	4.0 psi	-0.1 psi	Pass	
10000	10000.00 psi	10000.4 psi	5.0 psi	0.4 psi	Pass	
8000	7999.86 psi	8000.0 psi	4.0 psi	0.1 psi	Pass	
6000	6000.13 psi	6000.8 psi	3.0 psi	0.7 psi	Pass	
4000	3999.97 psi	4000.8 psi	2.0 psi	0.8 psi	Pass	
2000	2000.25 psi	2000.9 psi	1.5 psi	0.7 psi	Pass	
0	-0.05 psi	0.0 psi	1.5 psi	0.1 psi	Pass	

— End of measurement results—





7200 E. Dry Creek Rd, STE C-102, Centennial, CO 80112
Ph. 303-804-0667 Cal.Lab@Apex-Instruments.com

Calibration Certificate

nVision 6

Certificate Number: 230243

Customer:

Pipeline Supply & Service
Evans, CO

Manufacturer: Crystal Engineering
Model Number: nVision RTD100
Serial Number: 212143
Description: Temperature Module (RTD)
Procedure: CRY_R_RTD100
Calibrated To: Manufacturer's Specifications
Technician: Ben Campbell

Calibration Date: 1/18/2023
Due Date: 1/18/2024
As Found: In Tolerance
As Left: As Found
Temperature: 70.6 F
Humidity: 21.3 %
Issue Date: 1/18/2023

Tolerance Specs:

Range: 0 to 400 ohms ; -328 to 1562 degF (PT100 0.00385)

Resistance 0 to 100% of FS: +/- (0.015% of R_{dg} + 0.02 ohms)
Class B Probe Temperature Deviation: +/- (0.3 + 0.005*T) degC

Technician Notes:

Upon receipt, noticed the unit had a noticeably damaged RTD Connector. Replaced Connector and Recorded As Left Data.

As Left Userspan:

As Left R0:

Approved Signatory: Ben Campbell

Apex Instruments certifies that the instrument listed above meets the specifications of the manufacturer at the completion of its calibration. The calibrations within the certificate are traceable through NIST or another National Metrology Institute to the International System of Units (SI).

Methods used are in accordance with the procedure listed above. This calibration is a direct comparison of the unit under test to the listed reference standards and did not involve any sampling plans to complete. No allowance has been made for the instability of the test device due to use, time, etc. Such allowances would be made by the customer as needed.

Unless otherwise contractually specified, a binary decision rule, utilizing simple acceptance, and simple rejection criteria will be used for the determination of compliance. When compliance statements are present, they are reported without factoring in the effects of uncertainty and the limits are defined by the manufacturer's stated accuracy.

This certificate does not guarantee the continued performance of the instrument listed above. Any modifications or services performed hereafter may void this certificate.

This certificate applies only to the item listed above and is not to be reproduced other than in full, except with prior written approval from Apex Instruments Inc.



APX10789

Standards Used

Description	Model Number	Serial Number	Calibration Date	Due Date	ID
Reference Thermometer Readout / PRT	1502A / 5628-12-D	B64070 / 3526	1/5/2023	1/5/2024	APX00014
Reference Thermometer Readout / PRT	1502A / 5628-12-D	B0B641 / 3780	9/11/2022	9/11/2023	APX00015
Decade Resistor	1433-28	E1-17295164	1/18/2022	1/18/2023	APX02856
Temp / RH Datalogger	UX100-011	21284717	1/31/2022	1/31/2023	APX09581

Crystal nVision RTD100

Manual Template

Test Description	Nominal	Test Results	As Left Tolerance (+/-)	UUT Error	Status	Pass
Measure Resistance						
5 Ohms	5.00 Ω	5.00 Ω	0.02 Ω	0.00 Ω	Pass	
100 Ohms	100.00 Ω	100.00 Ω	0.03 Ω	0.00 Ω	Pass	
200 Ohms	200.00 Ω	200.00 Ω	0.04 Ω	0.00 Ω	Pass	
300 Ohms	300.00 Ω	300.00 Ω	0.06 Ω	0.00 Ω	Pass	
400 Ohms	400.00 Ω	400.00 Ω	0.08 Ω	0.00 Ω	Pass	

Crystal nVision RTD100 Probe Verification

Manual Template

Test Description	Nominal	Test Results	As Left Tolerance (+/-)	UUT Error	Status	Pass
RTD Probe Verification						
Class B / 3-Wire / PT100 0.00385						
Serial Number					090622-2	
32 F	32.09 °F	32.49 °F	0.56 °F	0.40 °F	Pass	
250 F	250.02 °F	250.50 °F	1.64 °F	0.48 °F	Pass	

Crystal nVision RTD100 Probe Verification

Manual Template

Test Description	Nominal	Test Results	As Left Tolerance (+/-)	UUT Error	Status	Pass
RTD Probe Verification						
Class B / 3-Wire / PT100 0.00385						
Serial Number					200131-2	
32 F	32.06 °F	32.11 °F	0.56 °F	0.05 °F	Pass	
250 F	250.01 °F	249.80 °F	1.64 °F	-0.21 °F	Pass	

Crystal nVision RTD100 Probe Verification

Manual Template

Test Description	Nominal	Test Results	As Left Tolerance (+/-)	UUT Error	Status	Pass
RTD Probe Verification						
Class B / 3-Wire / PT100 0.00385						
Serial Number					112321-1	
32 F	32.08 °F	32.44 °F	0.56 °F	0.36 °F	Pass	
250 F	250.02 °F	250.43 °F	1.64 °F	0.41 °F	Pass	

— End of measurement results—

