



801 Louisiana, Ste.200  
Houston, Texas 77002

Redacted

October 5, 2011

Pacific Gas and Electric Company  
350 N. Wiget  
Walnut Creek, CA 94598  
Attention: Redacted

Test Contractor:	Milbar hydro-test inc. -- FY12-112
Asset Owner:	Pacific Gas and Electric Company -- 41535680-T-115
Construction Contractor:	Snelson -- 41474005 -T115
Test Section:	PG&E T-115 L-300A, MP 288.9604 - 291.4411
Test Date:	October 5, 2011
Certificate Number:	RCP 61362 - T-115, L-300A, MP 288.9604 - 291.4411

To whom it may concern,

This letter is to certify that the hydrostatic test performed on pipe owned by Pacific Gas and Electric Company and tested by Milbar hydro-test inc. met the requirements of the Code of Federal Regulations, Title 49, Part 192, Subpart J (Class 2).

The test segment was subjected to a spike pressure test of 1039 psig for 30 minutes, without observed leakage or yielding of the pipe segment. The 30 minute spike test and subsequent pressure reduction with volume bleed was included and is part of the 8.67 hour test duration period.

This hydrostatic test was completed successfully. Pressure was maintained on the test facilities in excess of 8.67 continuous hours without evidence of a leak failure. Water was the test medium. At the highest elevation point in the test section, the calculated test pressure was 961 psig and the established MAOP is 768 psig.

Pressure decreased 71 psi during the test. 28,288.00 ounces of fluid was intentionally released from the test section. Net corrected volumetric change from beginning of the test to the end of the test is calculated to be 6,962.26 ounces, gain, which is equivalent to a 0.66 °F change in pipe temperature and within the error attributed to the temperature measurement instrumentation utilized.

Test pressure did not remain steady even though no leaks were observed. The volumetric gain is attributed to the error characteristic of the temperature measurement instrumentation utilized.

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Sincerely,

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### Hydrostatic Test Certification

Company	Pacific Gas and Electric Company	Job Number	41535680-T-115
Construction Co.	Snelson	Job Number	41474005-T115
Hydro. Test Co.	Milbar hydro-test inc.	Project No.	FY12-112
Test Section	PG&E T-115 L-300A, MP 288.9604 - 291.4411		
File Name	RCP 61392 - T-115, L-300A, MP 288.9604 - 291.4411		

#### Hydrostatic Test Pressure

APPLICABLE CODE FOR CERTIFICATION:

Test Date:

5-Oct-11

Code of Federal Regulations, Title 49, Part 192, Subpart J (Class 2)

This is to certify that the pipeline or pipeline section(s) described below was hydrostatically pressure tested in accordance with the following procedure:

Pipeline: PG&amp;E T-115 L-300A, MP 288.9604 - 291.4411

From: 127+28

To: 0+00

#### Pipe Data

Segment	Length	Diameter	Wall Thickness	Specification	100% SMYS
1	73 ft	34.000 in.	0.375 in.	API5L-X65, DSAW, Arc Weld, Steel	1,434 psi
2	19 ft	34.000 in.	0.500 in.	API5L-X65, DSAW, Arc Weld, Steel	1,912 psi
3	60 ft	34.000 in.	0.500 in.	API5L-X46, DSAW, Arc Weld, Steel	1,353 psi
4	12,661 ft	34.000 in.	0.344 in.	API5L-X52, DSAW, Arc Weld, Steel	1,052 psi
5	24 ft	1.315 in.	0.154 in.	API5L-Grade B, SM, Arc Weld, Steel	8,198 psi

#### Initial Test Conditions

Pressure at Test Point:	1,039 psig	Date/Time:	10/5/11 10:05 AM	Pipe Temperature	
Ambient Temperature:	64.0 °F	Elevation @ Test Point:	305.0 ft	Unrestrained:	67.0 °F
Pressure @ High Point (Cal/Measure):	1,032 psig	Elevation @ High Point:	321.0 ft	Restrained:	76.0 °F
Pressure @ Low Point (Cal/Measure):	1,040 psig	Elevation @ Low Point:	303.0 ft	Location:	127+28
				Location:	8+06
				Location:	126+50

#### Final Test Conditions

Pressure at Test Point:	968 psig	Date/Time:	10/5/11 6:45 PM	Pipe Temperature	
Ambient Temperature:	61.0 °F	Elevation @ Test Point:	305.0 ft	Unrestrained:	65.0 °F
Pressure @ High Point (Cal/Measure):	961 psig	Elevation @ High Point:	321.0 ft	Restrained:	77.0 °F
Pressure @ Low Point (Cal/Measure):	969 psig	Elevation @ Low Point:	303.0 ft	Location:	127+28
				Location:	8+06
				Location:	126+50

Total Fluid Injected:

Total Fluid Withdrawn: 28288.00 fluid ounces

Volume gain

Net Change in Volume of the Test Section ± (+ Gain, - Loss): 6,962.26 oz gain 0.0093% 0.664 °F equivalent

Test Duration: 8.67 hours

Minimum Test Pressure:	968 psig	961 psig	969 psig
Maximum Test Pressure:	1,039 psig	1,032 psig	1,040 psig
% SMYS:	54.3%	98.1%	98.8%
Test Segment Observed % SMYS:	Minimum 12.6%	Maximum	98.8%

Minimum Test Pressure (Calculated/Measured):

961 psig

DOT Part 192

Test Factor= 1.25

768 psig

Maximum Allowable Operating Pressure:

Were leaks observed?	No	Explain:
Acceptable Hydrostatic Test?	Yes	<p>The test segment was subjected to a spike pressure test of 1039 psig for 30 minutes, without observed leakage or yielding of the pipe segment. The 30 minute spike test and subsequent pressure reduction with volume bleed was included and is part of the 8.67 hour test duration period.</p> <p>No leaks were observed during the test period. The test section included 12,751 feet of buried and 164 feet of exposed pipe. Pressure lost 71 psi during the test. The buried pipe segment lost 1°F fluid temperature and the exposed pipe segment lost 2°F.</p> <p>28,288.00 ounces of fluid was intentionally released from the test section. Net corrected volumetric change from beginning of the test to the end of the test is calculated to be 6,962.26 ounces, gain, which is equivalent to a 0.66 °F change in pipe temperature and within the error attributed to the temperature measurement instrumentation utilized.</p> <p>Test pressure did not remain steady even though no leaks were observed. The volumetric gain is attributed to the error characteristic of the temperature measurement instrumentation utilized.</p>

Remarks

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# Dead Weight Log Sheet

Owner Company	Pacific Gas and Electric Company	Job Number	41535680-T-115
Construction Co.	Snelson	Job Number	41474005-T115
Testing Co.	Milbar hydro-test inc.	Project No.	FY12-112
Test Section	PG&E T-115 L-300A, MP 288.9604 - 291.4411		
File Name	RCP 61362 - T-115, L-300A, MP 288.9604 - 291.4411		

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## Test Log

Log No.	Test Period		Test Pressure	Temperature °F			Remarks	Bleed	Inject
	Date	Time		Ambient	Pipe				
					Unrestrained	Restrained			
1	10/5/11	9:33 AM	716 psig	67 °F	70 °F	78 °F	Start Spike		
2	10/5/11	9:34 AM	726 psig	67 °F	70 °F	78 °F	Inject		4,583 oz.
3	10/5/11	9:35 AM	736 psig	67 °F	70 °F	78 °F	Inject		4,865 oz.
4	10/5/11	9:36 AM	746 psig	67 °F	70 °F	78 °F	Inject		4,794 oz.
5	10/5/11	9:37 AM	756 psig	67 °F	70 °F	78 °F	Inject		4,724 oz.
6	10/5/11	9:38 AM	766 psig	67 °F	70 °F	78 °F	Inject		4,865 oz.
7	10/5/11	9:39 AM	776 psig	67 °F	70 °F	78 °F	Inject		4,653 oz.
8	10/5/11	9:40 AM	786 psig	67 °F	70 °F	78 °F	Inject		4,865 oz.
9	10/5/11	9:41 AM	796 psig	67 °F	70 °F	78 °F	Inject		4,935 oz.
10	10/5/11	9:42 AM	806 psig	67 °F	70 °F	78 °F	Inject		4,512 oz.
11	10/5/11	9:43 AM	816 psig	67 °F	70 °F	78 °F	Inject		4,794 oz.
12	10/5/11	9:44 AM	826 psig	67 °F	70 °F	78 °F	Inject		4,935 oz.
13	10/5/11	9:45 AM	836 psig	67 °F	70 °F	78 °F	Inject		4,865 oz.
14	10/5/11	9:46 AM	846 psig	67 °F	70 °F	78 °F	Inject		4,794 oz.
15	10/5/11	9:47 AM	856 psig	67 °F	70 °F	78 °F	Inject		4,865 oz.
16	10/5/11	9:48 AM	866 psig	67 °F	70 °F	78 °F	Inject		4,653 oz.
17	10/5/11	9:49 AM	876 psig	67 °F	70 °F	78 °F	Inject		4,865 oz.
18	10/5/11	9:50 AM	886 psig	67 °F	70 °F	78 °F	Inject		4,724 oz.
19	10/5/11	9:51 AM	896 psig	67 °F	70 °F	78 °F	Inject		4,935 oz.
20	10/5/11	9:52 AM	906 psig	67 °F	70 °F	78 °F	Inject		4,653 oz.
21	10/5/11	9:53 AM	916 psig	67 °F	70 °F	78 °F	Inject		5,006 oz.
22	10/5/11	9:54 AM	926 psig	67 °F	70 °F	78 °F	Inject		4,724 oz.
23	10/5/11	9:55 AM	936 psig	67 °F	70 °F	78 °F	Inject		4,794 oz.
24	10/5/11	9:56 AM	946 psig	67 °F	70 °F	78 °F	Inject		4,794 oz.
25	10/5/11	9:57 AM	956 psig	67 °F	70 °F	78 °F	Inject		4,935 oz.
26	10/5/11	9:58 AM	966 psig	67 °F	70 °F	78 °F	Inject		4,794 oz.
27	10/5/11	9:59 AM	976 psig	67 °F	70 °F	78 °F	Inject		4,865 oz.
28	10/5/11	10:00 AM	986 psig	67 °F	70 °F	78 °F	Inject		4,512 oz.
29	10/5/11	10:01 AM	996 psig	67 °F	70 °F	78 °F	Inject		5,006 oz.
30	10/5/11	10:02 AM	1,006 psig	67 °F	70 °F	78 °F	Inject		4,935 oz.
31	10/5/11	10:03 AM	1,016 psig	67 °F	70 °F	78 °F	Inject		4,865 oz.
32	10/5/11	10:04 AM	1,026 psig	67 °F	70 °F	78 °F	Inject		4,794 oz.
33	10/5/11	10:04 AM	1,036 psig	67 °F	70 °F	78 °F	Inject		4,724 oz.
34	10/5/11	10:04 AM	1,039 psig	67 °F	70 °F	78 °F	Inject		1,410 oz.
35	10/5/11	10:05 AM	1,039 psig	64 °F	67 °F	78 °F	On Test		
36	10/5/11	10:15 AM	1,038 psig	62 °F	66 °F	78 °F			
37	10/5/11	10:25 AM	1,038 psig	61 °F	66 °F	78 °F			
38	10/5/11	10:35 AM	1,038 psig	61 °F	66 °F	78 °F	End Spike		
39	10/5/11	10:36 AM	1,028 psig	61 °F	66 °F	78 °F	Bleed	4,160 oz.	
40	10/5/11	10:37 AM	1,018 psig	61 °F	66 °F	78 °F	Bleed	4,160 oz.	
41	10/5/11	10:38 AM	1,008 psig	61 °F	66 °F	78 °F	Bleed	4,160 oz.	
42	10/5/11	10:39 AM	998 psig	61 °F	66 °F	78 °F	Bleed	4,160 oz.	
43	10/5/11	10:40 AM	988 psig	61 °F	66 °F	78 °F	Bleed	4,160 oz.	



# Dead Weight Log Sheet

Owner Company	Pacific Gas and Electric Company	Job Number	41535680-T-115
Construction Co.	Snelson	Job Number	41474005 -T115
Testing Co.	Milbar hydro-test inc.	Project No.	FY12-112
Test Section	PG&E T-115 L-300A, MP 288.9604 - 291.4411		
File Name	RCP 61362 - T-115, L-300A, MP 288.9604 - 291.4411		

Date	5-Oct-11	Test Log
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Log No.	Test Period		Test Pressure	Temperature °F			Remarks		
	Date	Time		Ambient	Pipe		Comment	Bleed	Inject
					Unrestrained	Restrained			
44	10/5/11	10:41 AM	978 psig	61 °F	66 °F	78 °F	Bleed	4,160 oz.	
45	10/5/11	10:45 AM	970 psig	61 °F	65 °F	78 °F	Bleed	3,328 oz.	
46	10/5/11	11:00 AM	970 psig	60 °F	65 °F	78 °F			
47	10/5/11	11:15 AM	970 psig	60 °F	65 °F	78 °F			
48	10/5/11	11:30 AM	970 psig	60 °F	65 °F	78 °F	Rain		
49	10/5/11	11:45 AM	970 psig	60 °F	66 °F	78 °F			
50	10/5/11	12:00 PM	970 psig	61 °F	66 °F	78 °F	Cloud Cover		
51	10/5/11	12:15 PM	970 psig	61 °F	67 °F	78 °F			
52	10/5/11	12:30 PM	970 psig	61 °F	67 °F	78 °F	Cool		
53	10/5/11	12:45 PM	969 psig	62 °F	67 °F	78 °F			
54	10/5/11	1:00 PM	969 psig	63 °F	68 °F	78 °F			
55	10/5/11	1:15 PM	970 psig	67 °F	71 °F	78 °F			
56	10/5/11	1:30 PM	970 psig	69 °F	71 °F	78 °F			
57	10/5/11	1:45 PM	970 psig	69 °F	70 °F	78 °F	Cool		
58	10/5/11	2:00 PM	970 psig	69 °F	70 °F	78 °F			
59	10/5/11	2:15 PM	969 psig	67 °F	70 °F	78 °F			
60	10/5/11	2:30 PM	969 psig	67 °F	70 °F	78 °F			
61	10/5/11	2:45 PM	969 psig	66 °F	70 °F	78 °F			
62	10/5/11	3:00 PM	969 psig	64 °F	69 °F	78 °F	Cool		
63	10/5/11	3:15 PM	969 psig	63 °F	68 °F	78 °F			
64	10/5/11	3:30 PM	969 psig	63 °F	68 °F	78 °F			
65	10/5/11	3:45 PM	969 psig	63 °F	68 °F	78 °F			
66	10/5/11	4:00 PM	969 psig	63 °F	68 °F	78 °F			
67	10/5/11	4:15 PM	969 psig	63 °F	68 °F	78 °F			
68	10/5/11	4:30 PM	969 psig	64 °F	68 °F	78 °F			
69	10/5/11	4:45 PM	969 psig	64 °F	67 °F	78 °F			
70	10/5/11	5:00 PM	969 psig	65 °F	67 °F	78 °F			
71	10/5/11	5:15 PM	969 psig	65 °F	66 °F	78 °F			
72	10/5/11	5:30 PM	969 psig	66 °F	66 °F	78 °F			
73	10/5/11	5:45 PM	969 psig	65 °F	66 °F	78 °F			
74	10/5/11	6:00 PM	969 psig	65 °F	66 °F	78 °F			
75	10/5/11	6:15 PM	968 psig	63 °F	65 °F	77 °F			
76	10/5/11	6:30 PM	968 psig	61 °F	65 °F	77 °F			
77	10/5/11	6:45 PM	968 psig	61 °F	65 °F	77 °F	End of Test		

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Spike Test		155,034.4 oz.
Hydrostatic Test	28,288.0 oz.	

Were leaks observed during the test period?	Exposed and buried pipe, no leaks observed.	High Test Pressure: 1,039 psig	Low Test Pressure: 968 psig
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## Pipe Segment Volume Calculations

Company	Pacific Gas and Electric Company	Job Number	41535680-T-115
Construction Co.	Snelson	Job Number	41474005-T115
Hydro. Test Co.	Milbar hydro-test inc.	Project No.	FY12-112
Test Section	PG&E T-115 L-300A, MP 288.9604 - 291.4411	WATER	
File Name	RCP 61362 - T-115, L-300A, MP 288.9604 - 291.4411		

Description	Segment							
	1	2	3	4	5	6	7	8
Restrained or Unrestrained?	Unrestrained	Unrestrained	Restrained	Restrained	Restrained	Restrained	Unrestrained	Unrestrained
Outside Diameter	34.000 in.	34.000 in.	34.000 in.	34.000 in.	1.315 in.	1.315 in.	34.000 in.	34.000 in.
Wall Thickness	0.375 in.	0.500 in.	0.500 in.	0.344 in.	0.154 in.	0.113 in.	0.500 in.	0.505 in.
Inside Diameter	33.250 in.	33.000 in.	33.000 in.	33.312 in.	1.007 in.	1.089 in.	33.000 in.	32.990 in.
Spec./Grade	API5L-X65	API5L-X65	API5L-X46	API5L-X52	API5L-Grade B	API5L-Grade B	API5L-X65	API5L-X60
Length Unrestrained	73 ft	19 ft					40 ft	32 ft
Length Restrained			60 ft	12,661 ft	24 ft	6 ft		
Temperature -- On Test	67 °F	67 °F	78.0 °F	78.0 °F	78.0 °F	78.0 °F	67.0 °F	67.0 °F
Temperature -- End of Test	65 °F	65 °F	77.0 °F	77.0 °F	77.0 °F	77.0 °F	65.0 °F	65.0 °F
Pressure -- On Test	1,039 psig	1,039 psig	1,039 psig	1,039 psig	1,039 psig	1,039 psig	1,039 psig	1,039 psig
Pressure -- End of Test	968 psig	968 psig	968 psig	968 psig	968 psig	968 psig	968 psig	968 psig

Unrestrained Pipe									
Sum:	Vo	7,335.17 gal		Vtp1	7,378.66 gal		Vtp2	7,376.71 gal	
		938,901 oz.			944,469 oz.			944,219 oz.	
Vo Unrestrained	3,293 gal	844 gal					1,777 gal	1,421 gal	
Fwp 1	1.003184	1.003184					1.003184	1.003184	
Fpp 1	1.003839	1.002857					1.002857	1.002828	
Fpt 1	1.000127	1.000127					1.000127	1.000127	
Fwt 1	1.000681	1.000681					1.000681	1.000681	
Fpwt 1 = Fpt/Fwt	0.999447	0.999447					0.999447	0.999447	
Vtp 1 = Vo(Fwp)(Fpp)(Fpwt)	3,314.13 gal	848.83 gal					1,787.01 gal	1,428.70 gal	
Fwp 2	1.002966	1.002966					1.002966	1.002966	
Fpp 2	1.003576	1.002662					1.002662	1.002635	
Fpt 2	1.000091	1.000091					1.000091	1.000091	
Fwt 2	1.000467	1.000467					1.000467	1.000467	
Fpwt = Fpt/Fwt	0.999624	0.999624					0.999624	0.999624	
Vtp = Vo(Fwp)(Fpp)(Fpwt)	3,313.13 gal	848.63 gal					1,786.59 gal	1,428.37 gal	

Restrained Pipe									
Sum:	Vo	575,896.70 gal		Vtp1	578,427.22 gal		Vtp2	578,262.56 gal	
		73,714,778 oz.			74,038,684 oz.			74,017,608 oz.	
Vo Unrestrained		2,666 gal		573,230 gal	1 gal	0 gal			
Fwp 1		1.003184		1.003184	1.003184	1.003184			
Fpp 1		1.002145		1.003117	1.000271	1.000369			
Fpt 1		1.000218		1.000218	1.000218	1.000218			
Fwt 1		1.002122		1.002122	1.002122	1.002122			
Fpwt 1 = Fpt/Fwt		0.998100		0.998100	0.998100	0.998100			
Vtp 1 = Vo(Fwp)(Fpp)(Fpwt)		2,675 gal		575,751 gal	1 gal	0 gal			
Fwp 2		1.002966		1.002966	1.002966	1.002966			
Fpp 2		1.001999		1.002905	1.000253	1.000344			
Fpt 2		1.000206		1.000206	1.000206	1.000206			
Fwt 2		1.001966		1.001966	1.001966	1.001966			
Fpwt = Fpt/Fwt		0.998243		0.998243	0.998243	0.998243			
Vtp = Vo(Fwp)(Fpp)(Fpwt)		2,674 gal		575,587 gal	1 gal	0 gal			

Combined Pipe									
Sum:	Vo	583,231.87 gal		Vtp1	585,805.88 gal		Vtp2	585,639.28 gal	
		74,653,679 oz.			74,983,153 oz.			74,961,827 oz.	

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# Pipe Segment Volume Allowance Calculations

Company	Pacific Gas and Electric Company	Job Number	41535680-T-115
Construction Co.	Snelson	Job Number	41474005-T115
Hydro. Test Co.	Mibar hydro-test inc.	Project No.	FY12-112
Test Section	PG&E T-115 L-300A, MP 288.9604 - 291.4411	WATER	
File Name	RCP 61362 - T-115, L-300A, MP 288.9604 - 291.4411		

### General Pipe Data

Description	Segment							
	1	2	3	4	5	6	7	8
Restrained or Unrestrained?	Unrestrained	Unrestrained	Restrained	Restrained	Restrained	Restrained	Unrestrained	Unrestrained
Outside Diameter	34.000 in.	34.000 in.	34.000 in.	34.000 in.	1.315 in.	1.315 in.	34.000 in.	34.000 in.
Wall Thickness	0.375 in.	0.500 in.	0.500 in.	0.344 in.	0.154 in.	0.113 in.	0.500 in.	0.505 in.
Inside Diameter	33.250 in.	33.000 in.	33.000 in.	33.312 in.	1.007 in.	1.089 in.	33.000 in.	32.890 in.
Spec./Grade	API5L-X65	API5L-X65	API5L-X46	API5L-X52	API5L-Grade B	API5L-Grade B	API5L-X65	API5L-X60
Length Unrestrained	73.00 ft	19.00 ft					40 ft	32 ft
Length Restrained			60 ft	12.661 ft	24 ft	6 ft		
Temperature - On Test	65 °F	65 °F	77 °F	77 °F	77 °F	77 °F	65 °F	65 °F
Temperature - End of Test	66 °F	66 °F	78 °F	78 °F	78 °F	78 °F	66 °F	66 °F
Pressure - On Test	1,003 psig	1,003 psig	1,003 psig	1,003 psig	1,003 psig	1,003 psig	1,003 psig	1,003 psig
Pressure - End of Test	1,003 psig	1,003 psig	1,003 psig	1,003 psig	1,003 psig	1,003 psig	1,003 psig	1,003 psig

### Unrestrained Pipe

Sum:	Vo	7,335.17 gal 938,901 oz.	Vtp1	7,378.32 gal 944,425 oz.	Vtp2	7,377.61 gal 944,334 oz.
Vo Unrestrained	3,293 gal	844 gal			1,777 gal	1,421 gal
Fwp 1	1.003074	1.003074			1.003074	1.003074
Fpp 1	1.003706	1.002758			1.002758	1.002730
Fpt 1	1.000091	1.000091			1.000091	1.000091
Fwt 1	1.000467	1.000467			1.000467	1.000467
Fpwt 1 = Fpt/Fwt	0.999624	0.999624			0.999624	0.999624
Vtp 1 = Vo(Fwp)(Fpp)(Fpwt)	3,313.91 gal	848.80 gal			1,786.95 gal	1,429 gal
Fwp 2	1.003074	1.003074			1.003074	1.003074
Fpp 2	1.003706	1.002758			1.002758	1.002730
Fpt 2	1.000109	1.000109			1.000109	1.000109
Fwt 2	1.000582	1.000582			1.000582	1.000582
Fpwt = Fpt/Fwt	0.999527	0.999527			0.999527	0.999527
Vtp = Vo(Fwp)(Fpp)(Fpwt)	3,313.59 gal	848.72 gal			1,786.78 gal	1,429 gal

### Restrained Pipe

Sum:	Vo	575,896.70 gal 73,714,778 oz.	Vtp1	578,383.78 gal 74,033,124 oz.	Vtp2	578,302.53 gal 74,022,724 oz.
Vo Restrained		2,666 gal	573,230 gal	1 gal	0 gal	
Fwp 1	1.003074	1.003074	1.003074	1.003074	1.003074	
Fpp 1		1.002069	1.003007	1.000260	1.000354	
Fpt 1		1.000206	1.000206	1.000206	1.000206	
Fwt 1		1.001966	1.001966	1.001966	1.001966	
Fpwt 1 = Fpt/Fwt		0.998243	0.998243	0.998243	0.998243	
Vtp 1 = Vo(Fwp)(Fpp)(Fpwt)		2,675 gal	575,708 gal	1 gal	0 gal	
Fwp 2		1.003074	1.003074	1.003074	1.003074	
Fpp 2		1.002073	1.003011	1.000264	1.000358	
Fpt 2		1.000218	1.000218	1.000218	1.000218	
Fwt 2		1.002122	1.002122	1.002122	1.002122	
Fpwt = Fpt/Fwt		0.998100	0.998100	0.998100	0.998100	
Vtp = Vo(Fwp)(Fpp)(Fpwt)		2,675 gal	575,627 gal	1 gal	0 gal	

### Combined Pipe

Sum:	Vo	583,231.87 gal 74,653,679 oz.	Vtp1	585,762.10 gal 74,977,549 oz.	Vtp2	585,680.14 gal 74,967,057 oz.
1 °F Change	81.97 gal	10,491.75 oz.				

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## Hydrostatic Test Pipe Data Table

Pipe Type	Length	Restrained / Unrestrained	Outside Diameter	Wall Thickness	Specification & Grade	Pipe Yield Pressure	Material	Joint Type	Seam Type
1	73 ft	Unrestrained	34.000 in.	0.3750 in.	API5L-X65	1,434 psig	Steel	Arc Weld	DSAW
2	19 ft	Unrestrained	34.000 in.	0.5000 in.	API5L-X65	1,912 psig	Steel	Arc Weld	DSAW
3	60 ft	Restrained	34.000 in.	0.5000 in.	API5L-X46	1,353 psig	Steel	Arc Weld	DSAW
4	12,661 ft	Restrained	34.000 in.	0.3440 in.	API5L-X52	1,052 psig	Steel	Arc Weld	DSAW
5	24 ft	Restrained	1.315 in.	0.1540 in.	API5L-Grade B	8,198 psig	Steel	Arc Weld	SM
6	6 ft	Restrained	1.315 in.	0.1130 in.	API5L-Grade B	6,015 psig	Steel	Arc Weld	SM
7	40 ft	Unrestrained	34.000 in.	0.5000 in.	API5L-X65	1,912 psig	Steel	Arc Weld	DSAW
8	32 ft	Unrestrained	34.000 in.	0.5050 in.	API5L-X60	1,782 psig	Steel	Arc Weld	DSAW

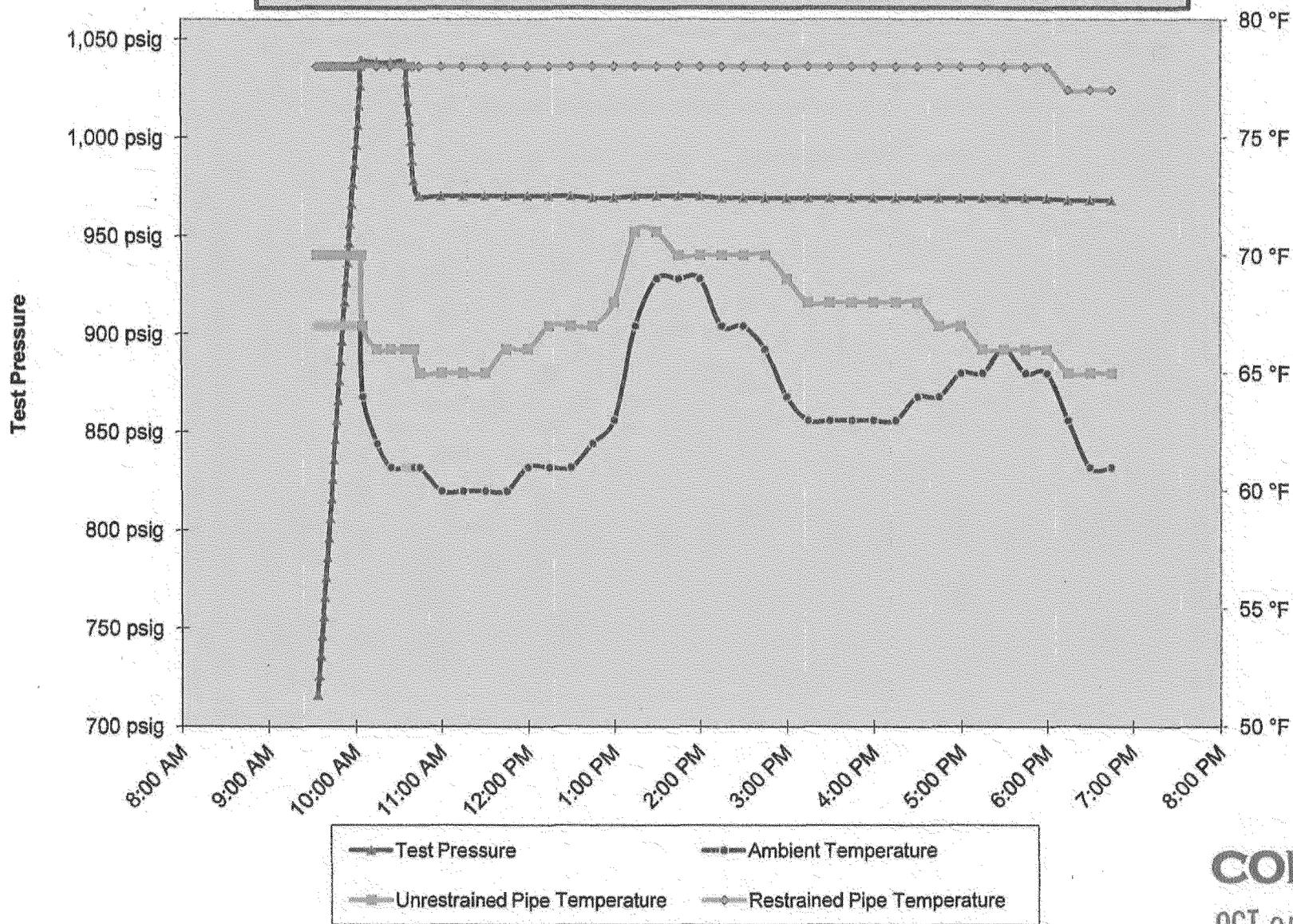
### Hydrostatic Test Project Owner & Participants

Owner Company	Pacific Gas and Electric Company	Job Number
Address	350 N. Wiget Walnut Creek, CA 94598 Attention: Redacted	41535680-T-115
Construction Company	Snelson	Job Number
Address	601 West State Street Sedro-Wooley, WA 98284 Attention: Redacted	41474005-T115
Hydrostatic Test Co.	Milbar hydro-test inc.	Project No.
Address	P O Box 7701 Shreveport, La. 71137-7701	FY12-112
Test Section	PG&E T-115 L-300A, MP 288.9604 - 291.4411 From: 127+28 To: 0+00	
File Name	RCP 61362 - T-115, L-300A, MP 288.9604 - 291.4411	

Part II - Test Data (TO BE PREPARED BY PERSON SUPERVISING TEST AT TIME OF TEST)				Note: Minimum test pressure and duration are not to be changed without written approval.			
Time and Date Test Pressure Reached	10/5/11 10:05 AM	Elevation at Test Point	305 ft	Min. Required Test Press At Test Point (1)	953.93 psig	Max. Allowable Test Press at Test Point (4)	1,051.13 psig
Time and Date Test Ended	10/5/11 6:45 PM	Max. Elevation in Test Section	321 ft	Min. Indicated Test Pressure (2)	968.00 psig	Max. Indicated Test Pressure (5)	1,039.00 psig
Actual Duration of Test	8 hours 40 minutes	Min. Elevation in Test Section	303 ft	Min. Test Pressure at Max. Elevation (3)	981.07 psig	Max. Test Pressure at Min. Elevation (6)	1,039.87 psig

RCP

PG&E T-115 L-300A, MP 288.9604 - 291.4411

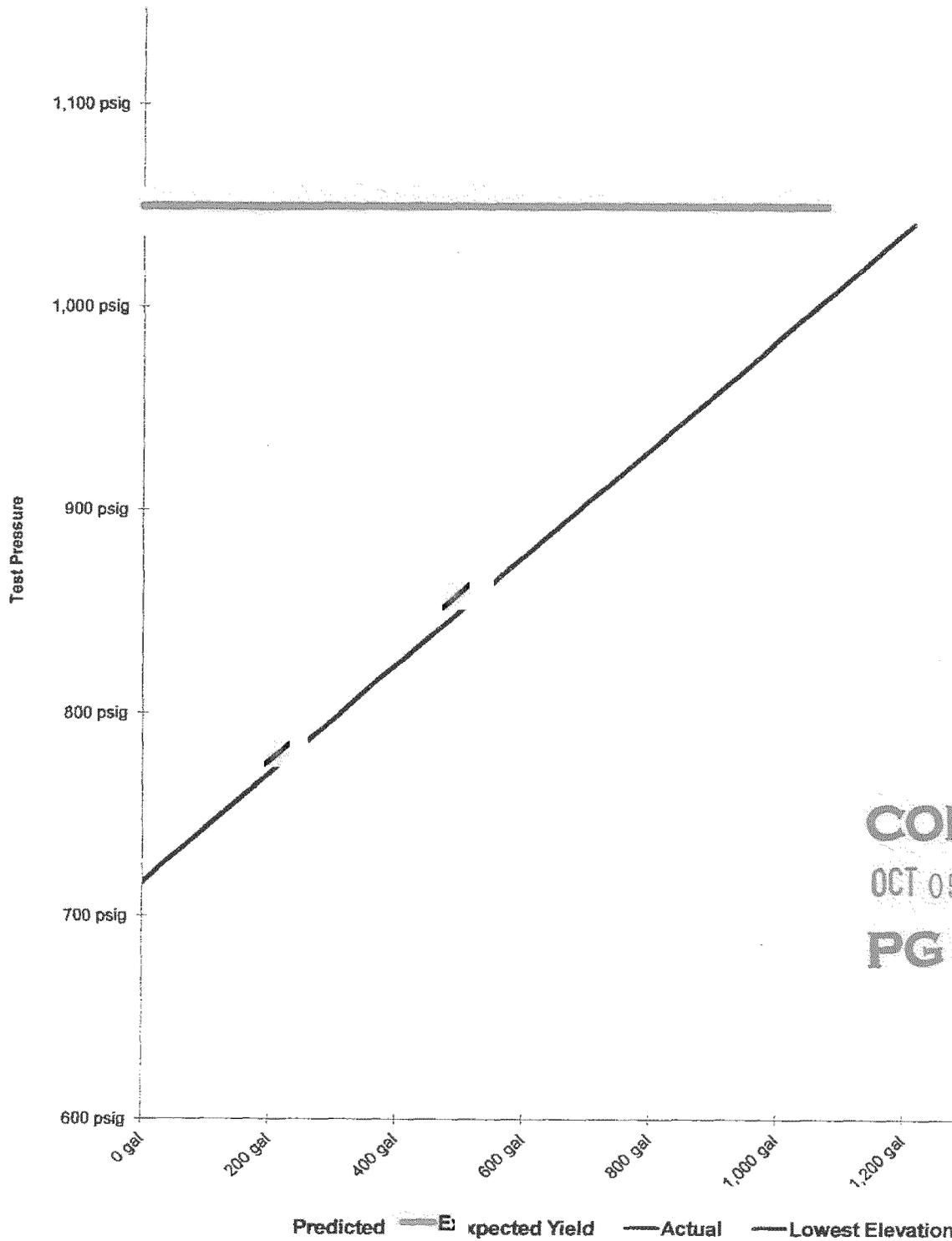


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PlotT

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10/5/2011

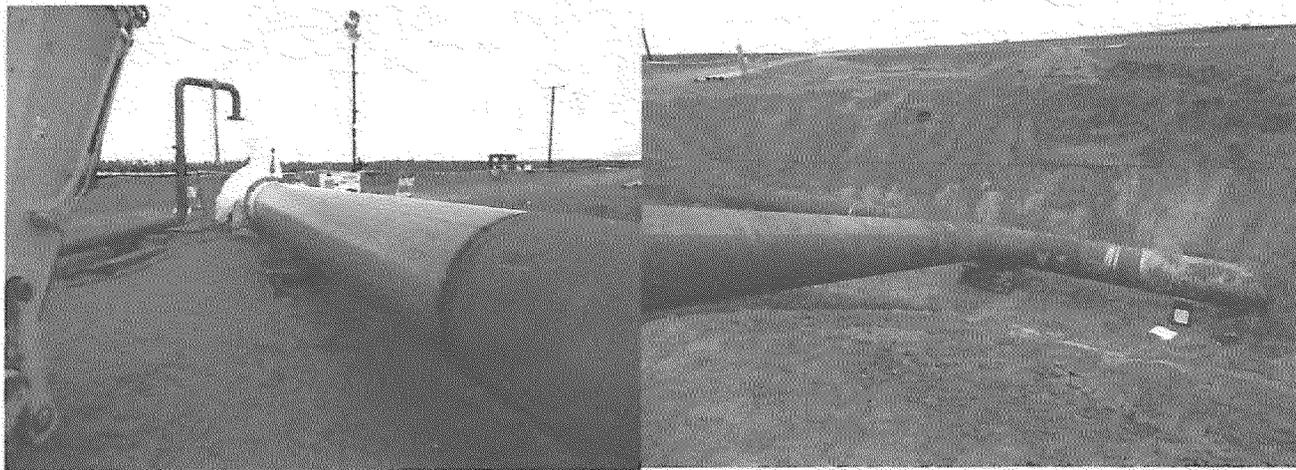
**Spike Pressure Test**  
**Stress Strain Curve -- PG&E T-115 L-300A, MP 288.9604 - 291.4411**



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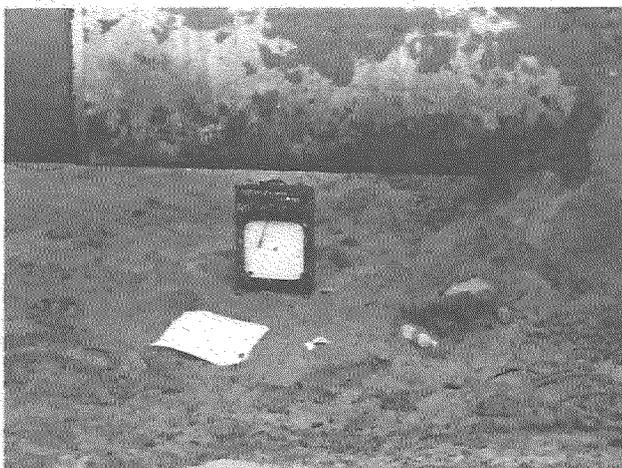


**RCP**



Test 115 test head

Test 115 test head & Tie In



Test 115 Unrestrained & Alternate  
Temp. Recorder

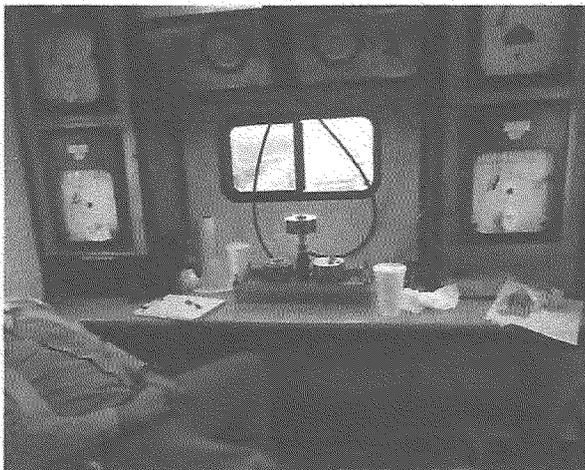


Test 115 Pump Truck

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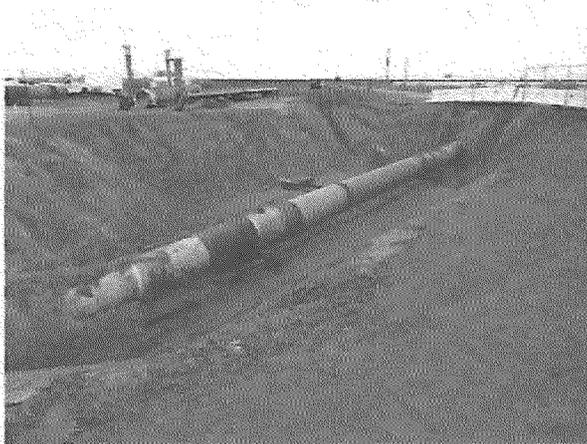
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Test T-115 Deadweight



Test T-115 Restraint Temp Rec



Test T-115 MLV Site



Test T-115 Test End

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