



RCP, Inc

801 Louisiana, Ste.200
Houston, Texas 77002

Redacted

October 25, 2011

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

Test Contractor:	ARB -- T-42MLV 10/24/11
Asset Owner:	Pacific Gas and Electric Company -- 41474081
Construction Contractor:	ARB -- 0629-53-3500 T-42 MLV
Test Section:	PG&E T-42 MLV 0.00, L-147 , MP 0.00 - 0.85
Test Date:	October 24, 2011
Certificate Number:	RCP 61362 - T-42 MLV 0.00, L-147, MP 0.00 - 0.85

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 ARB met the requirements of the Code of Federal Regulations, Title 49, Part 192, Subpart J (Class 3).

The test segment was subjected to a spike pressure test of 670 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 8.25 hour test duration period.

This hydrostatic test was completed successfully. Pressure was maintained on the test facilities in excess of 8.25 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 607 psig and the MAOP per 49 CFR Part 192, Subpart J can be as high as 404 psig. The MAOP established by this test is sufficient to qualify for Pacific Gas and Electric Company's desired MAOP of 400 psig.

Pressure decreased 63 psi during the test. 22.53 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 10.16 ounces, gain, which is equivalent to a 0.91 °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.

Sincerely,

Redacted

COPY
OCT 25 2011
PG & E

cc. file

Redacted



Hydrostatic Test Certification

Company	Pacific Gas and Electric Company	Job Number	41474081
Construction Co.	ARB	Job Number	0629-53-3500 T-42 MLV
Hydro. Test Co.	ARB	Project No.	T-42MLV 10/24/11
Test Section	PG&E T-42 MLV 0.00, L-147, MP 0.00 - 0.85		
File Name	RCP 61362 - T-42 MLV 0.00, L-147, MP 0.00 - 0.85		

Hydrostatic Test Pressure

APPLICABLE CODE FOR CERTIFICATION: Code of Federal Regulations, Title 49, Part 192, Subpart J (Class 3) Test Date: 24-Oct-11

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&E T-42 MLV 0.00, L-147, MP 0.00 - 0.85		
From:	0-21	To:	0-61

Pipe Data

Segment	Length	Diameter	Wall Thickness	Specification	100% SMYS
1	2 ft	24.000 in.	0.375 in.	API5L-X80, DSAW, Arc Weld, Steel	1,875 psi
2	22 ft	24.000 in.	0.250 in.	API5L-X52, DSAW, Arc Weld, Steel	1,083 psi
3	16 ft	20.000 in.	0.500 in.	API5L-Grade B, SM, Arc Weld, Steel	1,750 psi
4	5 ft	10.750 in.	0.365 in.	API5L-Grade B, SM, Arc Weld, Steel	2,377 psi

COPY
OCT 25 2011
PG & E

Initial Test Conditions

Pressure at Test Point:	670 psig	Date/Time:	10/25/11 12:00 AM	Pipe Temperature	
Ambient Temperature:	54.0 °F	Elevation @ Test Point:	589.0 ft	Unrestrained:	66.0 °F
Pressure @ High Point (Cal/Measure):	670 psig	Elevation @ High Point:	589.0 ft	Restrained:	69.0 °F
Pressure @ Low Point (Cal/Measure):	675 psig	Elevation @ Low Point:	578.0 ft	Location:	0-61
				Location:	0-21

Final Test Conditions

Pressure at Test Point:	607 psig	Date/Time:	10/25/11 8:15 AM	Pipe Temperature	
Ambient Temperature:	51.0 °F	Elevation @ Test Point:	589.0 ft	Unrestrained:	64.0 °F
Pressure @ High Point (Cal/Measure):	607 psig	Elevation @ High Point:	589.0 ft	Restrained:	67.0 °F
Pressure @ Low Point (Cal/Measure):	612 psig	Elevation @ Low Point:	578.0 ft	Location:	0-61
				Location:	0-21
Total Fluid Injected:				Volume gain	
Total Fluid Withdrawn:	22.53 fluid ounces				
Net Change in Volume of the Test Section ± (+ Gain, - Loss):	10.16 oz		gain	0.0096%	0.910 °F equivalent

Test Duration: 8.25 hours

Minimum Test Pressure:	607 psig	Maximum Test Pressure:	607 psig	Minimum Test Pressure (Calculated/Measured):	607 psig
Test Point:	670 psig	Max Elevation:	670 psig	Maximum Allowable Operating Pressure:	404 psig
% SMYS:			9900.0%	Test Factor=	1.50
Test Segment Observed % SMYS:	Minimum	28.3%	Maximum	62.0%	

The MAOP established by this test is sufficient to qualify for Pacific Gas and Electric Company's desired MAOP of 400 psig.

Were leaks observed?	No	Explain:	
Acceptable Hydrostatic Test?	Yes	<p>The test segment was subjected to a spike pressure test of 670 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 8.25 hour test duration period.</p> <p>No leaks were observed during the test period. The test section included 42 feet of buried and 5 feet of exposed pipe. Pressure lost 63 psi during the test. The buried pipe segment lost 2°F fluid temperature and the exposed pipe segment lost 2°F.</p> <p>22.53 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 10.16 ounces, gain, which is equivalent to a 0.91 °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

Redacted

25-Oct-11

Redacted

Certification



Dead Weight Log Sheet

Owner Company Pacific Gas and Electric Company

Job Number 41474081

Construction Co. ARB

Job Number 0629-53-3500 T-42 MLV

Testing Co. ARB

Project No. T-42MLV 10/24/1

Test Section PG&E T-42 MLV 0.00, L-147, MP 0.00 - 0.85

File Name RCP 61362 - T-42 MLV 0.00, L-147, MP 0.00 - 0.85

COPY

OCT 25 2011

PG & E

Date 24-Oct-11

Test Log

Log No.	Test Period		Test Pressure	Temperature °F			Remarks		
	Date	Time		Ambient	Pipe		Comment	Bleed	Inject
					Unrestrained	Restrained			
1	10/24/11	11:35 PM	447 psig	54 °F	66 °F	69 °F	Start Spike		
2	10/24/11	11:36 PM	457 psig	54 °F	66 °F	69 °F	Inject		5 oz.
3	10/24/11	11:37 PM	467 psig	54 °F	66 °F	69 °F	Inject		5 oz.
4	10/24/11	11:38 PM	477 psig	54 °F	66 °F	69 °F	Inject		4 oz.
5	10/24/11	11:39 PM	487 psig	54 °F	66 °F	69 °F	Inject		5 oz.
6	10/24/11	11:40 PM	497 psig	54 °F	66 °F	69 °F	Inject		4 oz.
7	10/24/11	11:41 PM	507 psig	54 °F	66 °F	69 °F	Inject		4 oz.
8	10/24/11	11:42 PM	517 psig	54 °F	66 °F	69 °F	Inject		5 oz.
9	10/24/11	11:43 PM	527 psig	54 °F	66 °F	69 °F	Inject		6 oz.
10	10/24/11	11:44 PM	537 psig	54 °F	66 °F	69 °F	Inject		5 oz.
11	10/24/11	11:45 PM	547 psig	54 °F	66 °F	69 °F	Inject		6 oz.
12	10/24/11	11:46 PM	557 psig	54 °F	66 °F	69 °F	Inject		5 oz.
13	10/24/11	11:47 PM	567 psig	54 °F	66 °F	69 °F	Inject		5 oz.
14	10/24/11	11:48 PM	577 psig	54 °F	66 °F	69 °F	Inject		5 oz.
15	10/24/11	11:49 PM	587 psig	54 °F	66 °F	69 °F	Inject		6 oz.
16	10/24/11	11:50 PM	597 psig	54 °F	66 °F	69 °F	Inject		5 oz.
17	10/24/11	11:51 PM	607 psig	54 °F	66 °F	69 °F	Inject		5 oz.
18	10/24/11	11:52 PM	617 psig	54 °F	66 °F	69 °F	Inject		4 oz.
19	10/24/11	11:53 PM	627 psig	54 °F	66 °F	69 °F	Inject		6 oz.
20	10/24/11	11:54 PM	637 psig	54 °F	66 °F	69 °F	Inject		4 oz.
21	10/24/11	11:55 PM	647 psig	54 °F	66 °F	69 °F	Inject		5 oz.
22	10/24/11	11:57 PM	657 psig	54 °F	66 °F	69 °F	Inject		6 oz.
23	10/24/11	11:58 PM	667 psig	54 °F	66 °F	69 °F	Inject		5 oz.
24	10/24/11	11:59 PM	670 psig	54 °F	66 °F	69 °F	Inject		2 oz.
25	10/25/11	12:00 AM	670 psig	54 °F	66 °F	69 °F	On Test		
26	10/25/11	12:10 AM	670 psig	54 °F	66 °F	69 °F			
27	10/25/11	12:20 AM	670 psig	54 °F	66 °F	69 °F			
28	10/25/11	12:30 AM	669 psig	54 °F	66 °F	69 °F	End Spike		
29	10/25/11	12:33 AM	660 psig	54 °F	66 °F	69 °F	Bleed	5 oz.	
30	10/25/11	12:36 AM	650 psig	54 °F	66 °F	69 °F	Bleed	5 oz.	
31	10/25/11	12:39 AM	640 psig	54 °F	66 °F	69 °F	Bleed	5 oz.	
32	10/25/11	12:42 AM	630 psig	54 °F	66 °F	69 °F	Bleed	5 oz.	
33	10/25/11	12:45 AM	625 psig	54 °F	66 °F	69 °F	Bleed	3 oz.	
34	10/25/11	1:00 AM	625 psig	52 °F	66 °F	69 °F			
35	10/25/11	1:15 AM	624 psig	52 °F	66 °F	69 °F	Cool		
36	10/25/11	1:30 AM	623 psig	51 °F	66 °F	69 °F			
37	10/25/11	1:45 AM	623 psig	52 °F	66 °F	69 °F			
38	10/25/11	2:00 AM	622 psig	51 °F	65 °F	69 °F			
39	10/25/11	2:15 AM	622 psig	51 °F	65 °F	69 °F			
40	10/25/11	2:30 AM	621 psig	51 °F	65 °F	69 °F	Cool		
41	10/25/11	2:45 AM	620 psig	52 °F	65 °F	69 °F			
42	10/25/11	3:00 AM	619 psig	51 °F	65 °F	69 °F			
43	10/25/11	3:15 AM	619 psig	52 °F	65 °F	69 °F			
44	10/25/11	3:30 AM	618 psig	52 °F	65 °F	69 °F			
45	10/25/11	3:45 AM	617 psig	52 °F	65 °F	69 °F			
46	10/25/11	4:00 AM	617 psig	51 °F	65 °F	69 °F			
47	10/25/11	4:15 AM	616 psig	51 °F	65 °F	69 °F			

Redacted



Pipe Segment Volume Calculations

Company	Pacific Gas and Electric Company	Job Number	41474081
Construction Co.	ARB	Job Number	0629-53-3500 T-42 MLV
Hydro. Test Co.	ARB	Project No.	T-42MLV 10/24/11
Test Section	PG&E T-42 MLV 0.00, L-147, MP 0.00 - 0.85	WATER	
File Name	RCP 81362 - T-42 MLV 0.00, L-147, MP 0.00 - 0.85		

General Pipe Data						
Description	Segment					
	1	2	3	4		
Restrained or Unrestrained?	Restrained	Restrained	Restrained	Unrestrained		
Outside Diameter	24.000 in.	24.000 in.	20.000 in.	10.750 in.		
Wall Thickness	0.375 in.	0.250 in.	0.500 in.	0.365 in.		
Inside Diameter	23.250 in.	23.500 in.	19.000 in.	10.020 in.		
Spec./Grade	API5L-X60	API5L-X52	API5L-Grade B	API5L-Grade B		
Length Unrestrained				5 ft		
Length Restrained	2 ft	22 ft	18 ft			
Temperature - On Test	69 °F	69 °F	69.0 °F	66.0 °F		
Temperature - End of Test	67 °F	67 °F	67.0 °F	64.0 °F		
Pressure - On Test	670 psig	670 psig	670 psig	670 psig		
Pressure - End of Test	607 psig	607 psig	607 psig	607 psig		

Unrestrained Pipe						
Vo	20.48 gal		Vtp1	20.53 gal	Vtp2	20.53 gal
	2,622 oz.			2,628 oz.		2,628 oz.
Vo Unrestrained				20 gal		
Fwp 1				1.002051		
Fpp 1				1.000766		
Fpt 1				1.000109		
Fwt 1				1.000582		
Fpwt 1 = Fpt/Fwt				0.999527		
Vtp 1 = Vo(Fwp)(Fpp)(Fpwt)				20.53 gal		
Fwp 2				1.001858		
Fpp 2				1.000694		
Fpt 2				1.000073		
Fwt 2				1.000375		
Fpwt = Fpt/Fwt				0.999698		
Vtp = Vo(Fwp)(Fpp)(Fpwt)				20.53 gal		

Restrained Pipe						
Vo	804.93 gal		Vtp1	807.15 gal	Vtp2	807.06 gal
	103,031 oz.			103,315 oz.		103,303 oz.
Vo Unrestrained	44 gal	496 gal	265 gal			
Fwp 1	1.002051	1.002051	1.002051			
Fpp 1	1.001292	1.001943	1.000805			
Fpt 1	1.000109	1.000109	1.000109			
Fwt 1	1.000929	1.000929	1.000929			
Fpwt 1 = Fpt/Fwt	0.999181	0.999181	0.999181			
Vtp 1 = Vo(Fwp)(Fpp)(Fpwt)	44 gal	497 gal	266 gal			
Fwp 2	1.001858	1.001858	1.001858			
Fpp 2	1.001167	1.001756	1.000725			
Fpt 2	1.000085	1.000085	1.000085			
Fwt 2	1.000681	1.000681	1.000681			
Fpwt = Fpt/Fwt	0.999404	0.999404	0.999404			
Vtp = Vo(Fwp)(Fpp)(Fpwt)	44 gal	497 gal	266 gal			

Combined Pipe						
Vo	825.41 gal		Vtp1	827.68 gal	Vtp2	827.58 gal
	105,652 oz.			105,943 oz.		105,931 oz.

Redacted



Pipe Segment Volume Allowance Calculations

Company	Pacific Gas and Electric Company	Job Number	41474081
Construction Co.	ARB	Job Number	0629-53-3500 T-42 MLV
Hydro. Test Co.	ARB	Project No.	T-42MLV 10/24/11
Test Section	PG&E T-42 MLV 0.00, L-147, MP 0.00 - 0.85		
File Name	RCP 61362 - T-42 MLV 0.00, L-147, MP 0.00 - 0.85		
WATER			

General Pipe Data						
Description	Segment					
	1	2	3	4		
Restrained or Unrestrained?	Restrained	Restrained	Restrained	Unrestrained		
Outside Diameter	24.000 in.	24.000 in.	20.000 in.	10.750 in.		
Wall Thickness	0.375 in.	0.250 in.	0.500 in.	0.365 in.		
Inside Diameter	23.250 in.	23.500 in.	19.000 in.	10.020 in.		
Spec./Grade	API5L-X60	API5L-X52	API5L-Grade B	API5L-Grade B		
Length Unrestrained				5 ft		
Length Restrained	2 ft	22 ft	18 ft			
Temperature -- On Test	67 °F	67 °F	67 °F	64 °F		
Temperature -- End of Test	68 °F	68 °F	68 °F	65 °F		
Pressure -- On Test	638 psig	638 psig	638 psig	638 psig		
Pressure -- End of Test	638 psig	638 psig	638 psig	638 psig		

Unrestrained Pipe					
Vo	20.48 gal 2,622 oz.		Vtp1	20.53 gal 2,628 oz.	
				Vtp2	20.53 gal 2,628 oz.
Vo Unrestrained					20 gal
Fwp 1					1.001953
Fpp 1					1.000730
Fpt 1					1.000073
Fwt 1					1.000375
Fpwt 1 = Fpt/Fwt					0.999698
Vtp 1 = Vo(Fwp)(Fpp)(Fpwt)					20.53 gal
Fwp 2					1.001953
Fpp 2					1.000730
Fpt 2					1.000091
Fwt 2					1.000467
Fpwt = Fpt/Fwt					0.999624
Vtp = Vo(Fwp)(Fpp)(Fpwt)					20.53 gal

Restrained Pipe					
Vo	804.93 gal 103,031 oz.		Vtp1	807.19 gal 103,320 oz.	
				Vtp2	807.10 gal 103,309 oz.
Vo Restrained	44 gal	496 gal	265 gal		
Fwp 1	1.001953	1.001953	1.001953		
Fpp 1	1.001225	1.001844	1.000761		
Fpt 1	1.000085	1.000085	1.000085		
Fwt 1	1.000681	1.000681	1.000681		
Fpwt 1 = Fpt/Fwt	0.999404	0.999404	0.999404		
Vtp 1 = Vo(Fwp)(Fpp)(Fpwt)	44 gal	497 gal	266 gal		
Fwp 2	1.001953	1.001953	1.001953		
Fpp 2	1.001229	1.001848	1.000764		
Fpt 2	1.000097	1.000097	1.000097		
Fwt 2	1.000803	1.000803	1.000803		
Fpwt = Fpt/Fwt	0.999294	0.999294	0.999294		
Vtp = Vo(Fwp)(Fpp)(Fpwt)	44 gal	497 gal	266 gal		

Combined Pipe					
Vo	825.41 gal 105,652 oz.		Vtp1	827.72 gal 105,948 oz.	
				Vtp2	827.63 gal 105,937 oz.
1 °F Change	0.09 gal		11.17 oz.		

Redacted



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	2 ft	Restrained	24.000 in.	0.3750 in.	API5L-X60	1,875 psig	Steel	Arc Weld	DSAW
2	22 ft	Restrained	24.000 in.	0.2500 in.	API5L-X52	1,083 psig	Steel	Arc Weld	DSAW
3	18 ft	Restrained	20.000 in.	0.5000 in.	API5L-Grade B	1,750 psig	Steel	Arc Weld	SM
4	5 ft	Unrestrained	10.750 in.	0.3650 in.	API5L-Grade B	2,377 psig	Steel	Arc Weld	SM

Hydrostatic Test Project Owner & Participants

Owner Company	Pacific Gas and Electric Company	Job Number
Address	350 N. Wiget Walnut Creek, CA 94598 Attention: Redacted	41474081
Construction Company	ARB	Job Number
Address	1875 Loveridge Road Pittsburg, CA 94565 Attention: Redacted	0629-53-3500 T-42 MLV
Hydrostatic Test Co.	ARB	Project No.
Address	1875 Loveridge Road Pittsburg, CA 94565 Attention: Redacted	T-42MLV 10/24/11
Test Section	PG&E T-42 MLV 0.00, L-147, MP 0.00 - 0.85 From: 0-21 To: 0-61	
File Name	RCP 61362 - T-42 MLV 0.00, L-147, MP 0.00 - 0.85	

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	10/25/11 12:00 AM	Elevation at Test Point	589 ft	Min. Required Test Press At Test Point (1)	600.00 psig	Max. Allowable Test Press at Test Point (4)	838.23 psig
Time and Date Test Ended	10/25/11 8:15 AM	Max. Elevation in Test Section	589 ft	Min. Indicated Test Pressure (2)	607.00 psig	Max. Indicated Test Pressure (5)	670.00 psig
Actual Duration of Test	8 hours 15 minutes	Min. Elevation in Test Section	578 ft	Min. Test Pressure at Max. Elevation (3)	607.00 psig	Max. Test Pressure at Min. Elevation (6)	674.77 psig

COPY

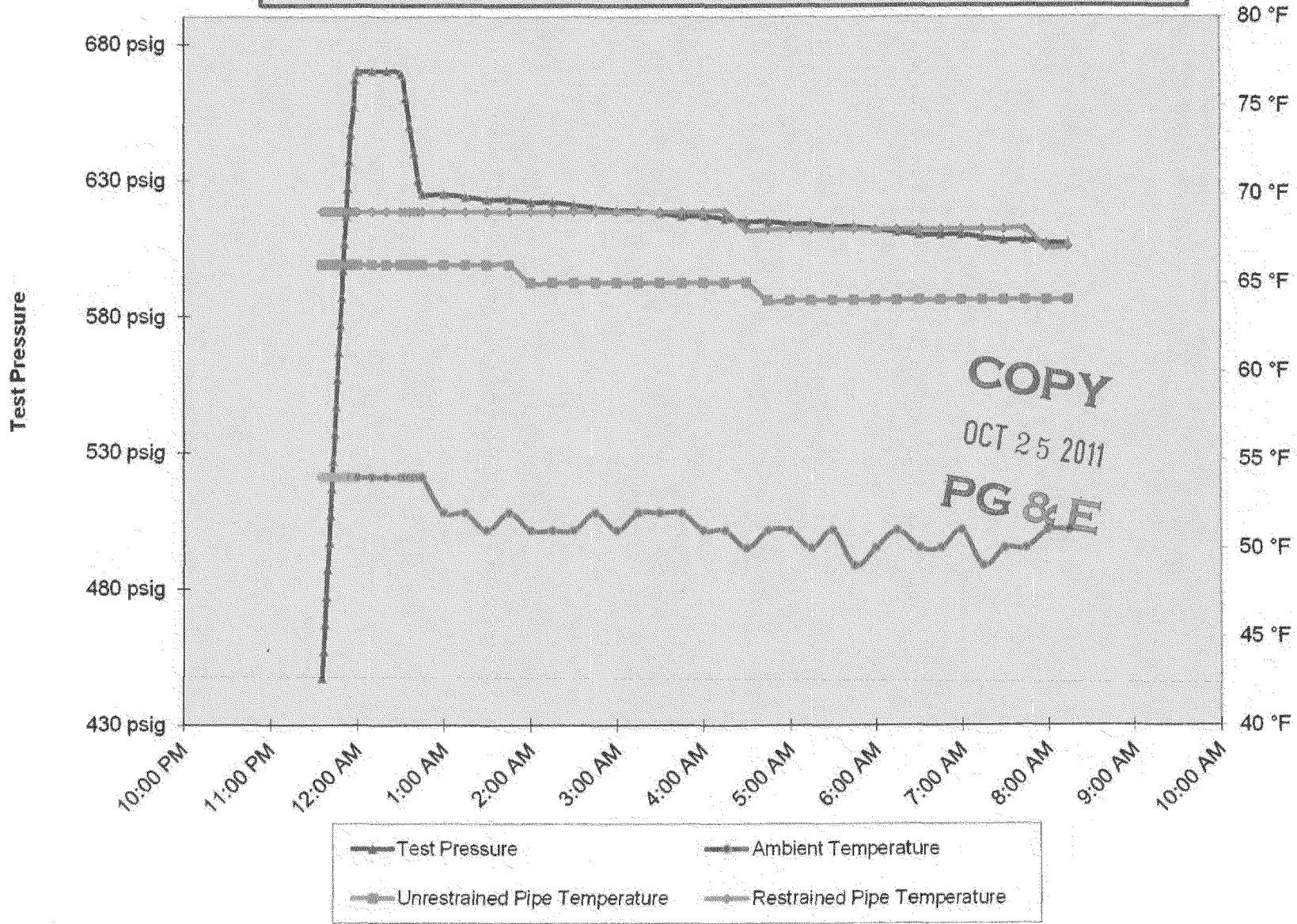
OCT 25 2011

PG & E

Redacted

Pipe

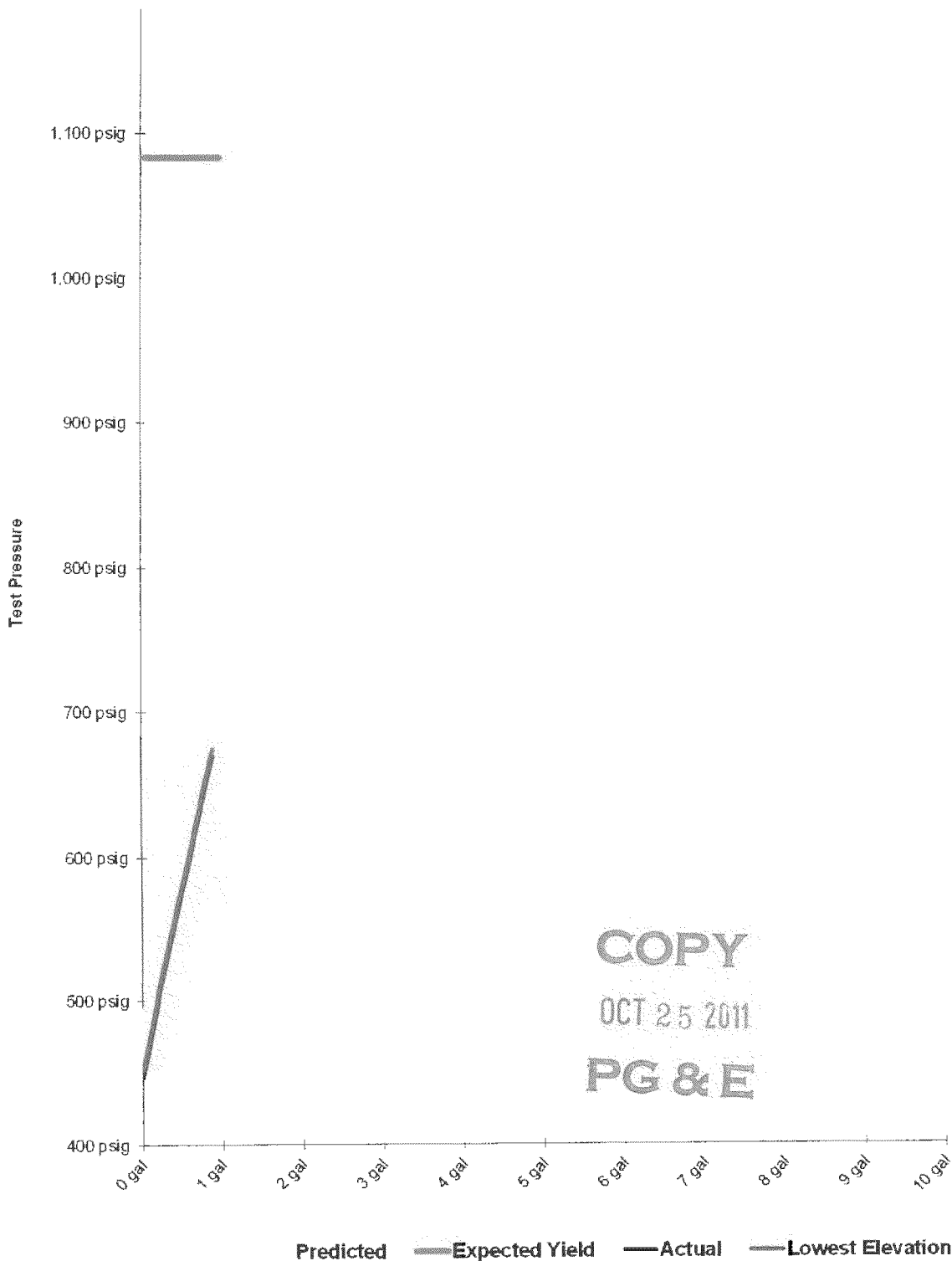
PG&E T-42 MLV 0.00, L-147 , MP 0.00 - 0.85



Redacted

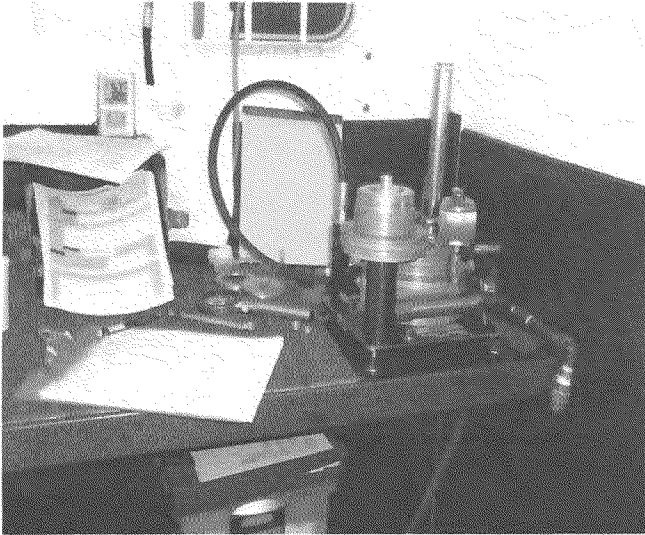
PlotT

Spike Pressure Test
Stress Strain Curve -- PG&E T-42 MLV 0.00, L-147 , MP 0.00 - 0.85



Actual Pressure Volume Plot Data			Predicted Pressure Volume Plot Data	Slope		Spike Pressure Test Stress Strain Curve -- PG&E T-42 MLV 0.00, L-147, MP 0.00 - 0.85	
Pressure	Strokes	Gallons	Gallons	Actual	Predicted		
447 psig	0	0.00 gal		0	0.000	39250	0.039 gal/stroke
457 psig	12	0.04 gal	0.04 gal	0.004	0.004	Pump Piston Diameter	1.375 in
467 psig	23	0.08 gal	0.09 gal	0.004	0.004	Pump Piston Stroke	3.00 in
477 psig	33	0.11 gal	0.13 gal	0.003	0.004	Pump Cylinders	2 ea
487 psig	44	0.15 gal	0.18 gal	0.004	0.004	Volume check gal per stroke	0.003 gal/stroke
497 psig	54	0.19 gal	0.22 gal	0.003	0.004	Volume Released (gallons)	0.04 gal
507 psig	62	0.22 gal	0.26 gal	0.003	0.004	Pressure Reduced (psi)	10 psi
517 psig	73	0.25 gal	0.31 gal	0.004	0.004	Maximum2	10 gal
527 psig	86	0.30 gal	0.35 gal	0.005	0.004	Minimum2	0 gal
537 psig	97	0.34 gal	0.40 gal	0.004	0.004	Maximum1	1,184 psig
547 psig	110	0.38 gal	0.44 gal	0.005	0.004	Minimum1	400 psig
557 psig	121	0.42 gal	0.48 gal	0.004	0.004	Gallons/Stroke Used	0.003 gal/stroke
567 psig	133	0.46 gal	0.53 gal	0.004	0.004	Predicted Gallons/Stroke	0.004 gal/stroke
577 psig	145	0.50 gal	0.57 gal	0.004	0.004	Pressure Increment	10 psi
587 psig	158	0.55 gal	0.62 gal	0.005	0.004	Max Pressure	670 psig
597 psig	170	0.59 gal	0.66 gal	0.004	0.004	Buried Pipe Temperature	69 °F
607 psig	182	0.63 gal	0.70 gal	0.004	0.004	Exposed Pipe Temperature	66 °F
617 psig	192	0.67 gal	0.75 gal	0.003	0.004	ASME B31.8 Appendix N-5	
627 psig	205	0.71 gal	0.79 gal	0.005	0.004	Average Actual Elastic Slope	0.004
637 psig	215	0.75 gal	0.83 gal	0.003	0.004	Average Predicted Elastic Slope	0.004
647 psig	227	0.79 gal	0.88 gal	0.004	0.004	Code Prescribed Minimum Yield Slope (less 10%) B31.8 N-5 (c)(2)	0.007
657 psig	240	0.83 gal	0.92 gal	0.005	0.004	Established Minimum Yield Pressure B31.8 N-5 (c)(2)	670 psig
667 psig	252	0.87 gal	0.97 gal	0.004	0.004	Maximum Allowed Volume (After Slope Deviation) B31.8 N-5 (c)(2)	418 gal
670 psig	257	0.89 gal	0.98 gal	0.006	0.004	Volume (After Slope Deviation) B31.8 N-5 (c)(2)	0 gal
670 psig		0.89 gal	0.98 gal	0.000	0.000	<div style="border: 1px solid black; padding: 10px; display: inline-block;"> Redacted </div> <div style="text-align: right; margin-top: 10px;"> <i>10/25/11</i> Date </div>	
670 psig		0.89 gal	0.98 gal	0.000	0.000		
670 psig		0.89 gal	0.98 gal	0.000	0.000		
670 psig		0.89 gal	0.98 gal	0.000	0.000		
670 psig		0.89 gal	0.98 gal	0.000	0.000		
670 psig		0.89 gal	0.98 gal	0.000	0.000		
670 psig		0.89 gal	0.98 gal	0.000	0.000		
670 psig		0.89 gal	0.98 gal	0.000	0.000		
670 psig		0.89 gal	0.98 gal	0.000	0.000		
670 psig		0.89 gal	0.98 gal	0.000	0.000		

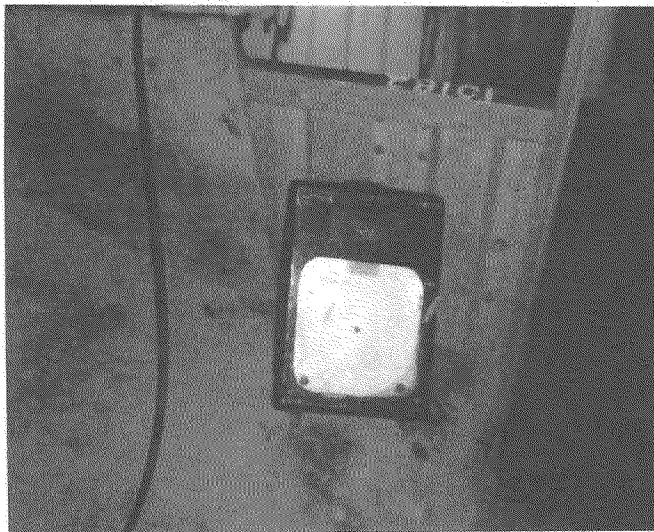
COPY
OCT 25 2011
PG & E



Deadweight Testing Equipment



20" Valve



Restrained Temp. Chart Recorder



Unrestrained Temp. Chart Recorder

COPY

OCT 25 2011

PG & E



Pressure Chart Recorder

COPY
OCT 25 2011
PG & E