



RCP, Inc

801 Louisiana, Ste.200
Houston, Texas 77002

Redacted

May 30, 2011

Pacific Gas and Electric Company
3600 Adobe Rd
Petaluma, Ca 94954
Attention: Joel Mannie
Attention:

Test Contractor:	Contra Costa Inspection Company -- PG&E 5-21-11
Asset Owner:	Pacific Gas and Electric Company -- 41474079
Construction Contractor:	ARB -- 0629-53-3500-96
Test Section:	PG&E Line SP-5 T-96B (West) Retest
Test Date:	May 21, 2011
Certificate Number:	RCP 61362 - 96B (West) Retest

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 Contra Costa Inspection Company met the requirements of the Code of Federal Regulations, Title 49, Part 192, Subpart J (Class 3).

On May 19th, this pipe segment was subjected to a spike pressure of 645 psig for 30 minutes, without observed leakage or yielding of the pipe segment. An 8 hour hydrostatic test was initiated immediately following the spike test. That test was terminated when the buried pipe temperature recorder appeared to be unstable and did not track with ground temperature. The recorder and probe was relocated to ensure an accurate plot of buried pipe temperature. The re-test began at 3:45 AM on May 21, 2011.

This hydrostatic test was completed successfully. Pressure was maintained on the test facilities in excess of 8 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 604 psig and the established MAOP is 402 psig.

Pressure decreased 1 psi during the test. No fluid was intentionally injected or released from the test section. Net corrected volumetric change from beginning of the test to the end of the test is calculated to be 62.27 ounces, gain, which is equivalent to a 0.03 °F change in pipe temperature and within the error attributed to the temperature measurement instrumentation utilized.

Test pressure remained steady and no leaks were observed. The volumetric gain is attributed to the error characteristic of the temperature measurement instrumentation utilized.

Sincerely,

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Letter



Hydrostatic Test Certification

Company	Pacific Gas and Electric Company	Job Number	41474079
Construction Co.	ARB	Job Number	0629-53-3500-96
Hydro. Test Co.	Contra Costa Inspection Company	Project No.	PG&E 5-21-11
Test Section	PG&E Line SP-5 T-96B (West) Retest		
File Name	RCP 61362 - 96B (West) Retest		

Hydrostatic Test Pressure

APPLICABLE CODE FOR CERTIFICATION: Code of Federal Regulations, Title 49, Part 192, Subpart J (Class 3) Test Date: 21-May-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 Line SP-5 T-96B (West) Retest
 From: 127+76 To: 206+00

Pipe Data

Segment	Length	Diameter	Wall Thickness	Specification	100% SMYS
1	105.00 ft	24.000 in.	0.375 in.	API5L-X60, SM, Arc Weld, Steel	1,875 psi
2	3,423.00 ft	24.000 in.	0.313 in.	API5L-X42, DSAW, Arc Weld, Steel	1,094 psi
3	16.00 ft	24.000 in.	0.313 in.	API5L-X42, DSAW, Arc Weld, Steel	1,094 psi
4	78 ft	24.000 in.	0.344 in.	API5L-X42, DSAW, Arc Weld, Steel	1,204 psi
5	4,228 ft	24.000 in.	0.271 in.	API5L-X42, DSAW, Arc Weld, Steel	949 psi
6	22 ft	24.000 in.	0.500 in.	API5L-X52, SM, Arc Weld, Steel	2,167 psi

Initial Test Conditions

Pressure at Test Point:	613 psig	Date/Time:	5/21/11 12:45 AM	Pipe Temperature	
Ambient Temperature:	57.0 °F	Elevation @ Test Point:	49.0 ft	Unrestrained:	69.0 °F
Pressure @ High Point (Cal/Measure):	605 psig	Elevation @ High Point:	67.0 ft	Restrained:	66.0 °F
Pressure @ Low Point (Cal/Measure):	626 psig	Elevation @ Low Point:	19.0 ft	Location:	127+76
				Location:	206+00
				Location:	138+00

Final Test Conditions

Pressure at Test Point:	612 psig	Date/Time:	5/21/11 8:45 AM	Pipe Temperature	
Ambient Temperature:	66.0 °F	Elevation @ Test Point:	49.0 ft	Unrestrained:	64.0 °F
Pressure @ High Point (Cal/Measure):	604 psig	Elevation @ High Point:	67.0 ft	Restrained:	66.0 °F
Pressure @ Low Point (Cal/Measure):	625 psig	Elevation @ Low Point:	19.0 ft	Location:	127+76
				Location:	206+00
				Location:	138+00

Total Fluid Injected:		Volume gain		
Total Fluid Withdrawn:				
Net Change in Volume of the Test Section ± (+ Gain, - Loss):	62.27 oz	gain	0.0003%	0.028 °F equivalent

Test Duration: 8 hours

Maximum Test Pressure: 613 psig

% SMYS @:	64.6%	Test Point	63.8%	High Point	66.0%	Low Point
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Minimum Test Pressure (Calculated/Measured): 604 psig

Maximum Allowable Operating Pressure: DOT Part 192 Test Factor= 1.50 402 psig

Were leaks observed?	No	Explain:
Acceptable Hydrostatic Test?	Yes	<p>Prior to initiation of the hydrostatic test period, the test segment was subjected to a spike pressure of 645 psig for 30 minutes, without observed leakage or yielding of the pipe segment.</p> <p>No leaks were observed during the test period. The test section included 7,729 feet of buried and 143 feet of exposed pipe. Pressure lost 1 psi during the test. The buried pipe segment fluid temperature remained steady and the exposed pipe segment lost 5°F.</p> <p>No fluid was intentionally injected or released from the test section. Net corrected volumetric change from beginning of the test to the end of the test is calculated to be 62.27 ounces, gain, which is equivalent to a 0.03 °F change in pipe temperature and within the error attributed to the temperature measurement instrumentation utilized.</p> <p>Test pressure remained steady and 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	41474079
Construction Co.	ARB	Job Number	0629-53-3500-96
Testing Co.	Contra Costa Inspection Company	Project No.	PG&E 5-21-11
Test Section	PG&E Line SP-5 T-96B (West) Retest		
File Name	RCP 61362 - 96B (West) Retest		

Date **21-May-11**

Test Log

Log No.	Test Period		Test Pressure	Temperature °F			Remarks		
	Date	Time		Ambient	Pipe		Comment	Bleed	Inject
					Unrestrained	Restrained			
1	5/21/11	12:45 AM	613 psig	57 °F	69 °F	66 °F	On Test		
2	5/21/11	12:55 AM	613 psig	57 °F	69 °F	66 °F			
3	5/21/11	1:05 AM	613 psig	57 °F	69 °F	66 °F			
4	5/21/11	1:15 AM	613 psig	57 °F	68 °F	66 °F			
5	5/21/11	1:25 AM	613 psig	57 °F	68 °F	66 °F			
6	5/21/11	1:35 AM	613 psig	57 °F	68 °F	68 °F			
7	5/21/11	1:45 AM	613 psig	57 °F	67 °F	66 °F			
8	5/21/11	2:00 AM	613 psig	57 °F	67 °F	66 °F			
9	5/21/11	2:15 AM	613 psig	57 °F	66 °F	66 °F			
10	5/21/11	2:30 AM	613 psig	56 °F	66 °F	66 °F			
11	5/21/11	2:45 AM	613 psig	56 °F	66 °F	66 °F			
12	5/21/11	3:00 AM	613 psig	56 °F	66 °F	66 °F			
13	5/21/11	3:15 AM	613 psig	56 °F	66 °F	66 °F			
14	5/21/11	3:30 AM	613 psig	56 °F	66 °F	66 °F			
15	5/21/11	3:45 AM	613 psig	56 °F	66 °F	66 °F			
16	5/21/11	4:00 AM	612 psig	56 °F	65 °F	66 °F			
17	5/21/11	4:15 AM	612 psig	56 °F	65 °F	66 °F			
18	5/21/11	4:30 AM	612 psig	57 °F	65 °F	66 °F			
19	5/21/11	4:45 AM	612 psig	56 °F	65 °F	66 °F			
20	5/21/11	5:00 AM	612 psig	56 °F	65 °F	66 °F			
21	5/21/11	5:15 AM	612 psig	57 °F	65 °F	66 °F			
22	5/21/11	5:30 AM	612 psig	57 °F	64 °F	66 °F			
23	5/21/11	5:45 AM	612 psig	56 °F	64 °F	66 °F			
24	5/21/11	6:00 AM	612 psig	55 °F	64 °F	66 °F			
25	5/21/11	6:15 AM	612 psig	55 °F	64 °F	66 °F			
26	5/21/11	6:30 AM	612 psig	55 °F	64 °F	66 °F			
27	5/21/11	6:45 AM	612 psig	55 °F	64 °F	66 °F			
28	5/21/11	7:00 AM	612 psig	58 °F	64 °F	66 °F			
29	5/21/11	7:15 AM	612 psig	61 °F	64 °F	66 °F			
30	5/21/11	7:30 AM	612 psig	61 °F	64 °F	66 °F			
31	5/21/11	7:45 AM	612 psig	64 °F	64 °F	66 °F			
32	5/21/11	8:00 AM	612 psig	64 °F	64 °F	66 °F			
33	5/21/11	8:15 AM	612 psig	65 °F	64 °F	66 °F			
34	5/21/11	8:30 AM	612 psig	66 °F	64 °F	66 °F			
35	5/21/11	8:45 AM	612 psig	66 °F	64 °F	66 °F	End of Test		

Spike Test
Hydrostatic Test

Were leaks observed during the test period?

Exposed and buried pipe,
no leaks observed.

High Test Pressure: 613 psig
Low Test Pressure: 612 psig



Pipe Segment Volume Calculations

Company	Pacific Gas and Electric Company	Job Number	41474079
Construction Co.	ARB	Job Number	0629-53-3500-96
Hydro. Test Co.	Contra Costa Inspection Company	Project No.	PG&E 5-21-11
Test Section	PG&E Line SP-5 T-96B (West) Retest		
File Name	RCP 61362 - 96B (West) Retest		WATER

General Pipe Data

Description	Segment					
	1	2	3	4	5	6
Restrained or Unrestrained?	Unrestrained	Restrained	Unrestrained	Restrained	Restrained	Unrestrained
Outside Diameter	24.000 in.	24.000 in.	24.000 in.	24.000 in.	24.000 in.	24.000 in.
Wall Thickness	0.375 in.	0.313 in.	0.313 in.	0.344 in.	0.271 in.	0.500 in.
Inside Diameter	23.250 in.	23.375 in.	23.375 in.	23.312 in.	23.458 in.	23.000 in.
Spec./Grade	API5L-X60	API5L-X42	API5L-X42	API5L-X42	API5L-X42	API5L-X52
Length Unrestrained	105 ft.		16 ft.			22 ft.
Length Restrained		3,423 ft.		78 ft.	4,228 ft.	
Temperature -- On Test	69 °F	66 °F	69.0 °F	66.0 °F	66.0 °F	69.0 °F
Temperature -- End of Test	64 °F	66 °F	64.0 °F	66.0 °F	66.0 °F	64.0 °F
Pressure -- On Test	613 psig	613 psig	613 psig	613 psig	613 psig	613 psig
Pressure -- End of Test	612 psig	612 psig	612 psig	612 psig	612 psig	612 psig

Unrestrained Pipe

Sum:	Vo	3,147.28 gal 402,851 oz.	Vtp1	3,155.68 gal 403,927 oz.	Vtp2	3,157.13 gal 404,112 oz.
Vo Unrestrained	2,316 gal		357 gal		475 gal	
Fwp 1	1.001876		1.001876		1.001876	
Fpp 1	1.001584		1.001911		1.001175	
Fpt 1	1.000164		1.000164		1.000164	
Fwt 1	1.000929		1.000929		1.000929	
Fpwt 1 = Fpt/Fwt	0.999236		0.999236		0.999236	
Vtp 1 = Vo(Fwp)(Fpp)(Fpwt)	2,322.01 gal		357.76 gal		475.91 gal	
Fwp 2	1.001873		1.001873		1.001873	
Fpp 2	1.001581		1.001907		1.001173	
Fpt 2	1.000073		1.000073		1.000073	
Fwt 2	1.000375		1.000375		1.000375	
Fpwt = Fpt/Fwt	0.999698		0.999698		0.999698	
Vtp = Vo(Fwp)(Fpp)(Fpwt)	2,323.07 gal		357.92 gal		476.13 gal	

Restrained Pipe

Sum:	Vo	172,961.34 gal 22,139,052 oz.	Vtp1	173,462.78 gal 22,203,236 oz.	Vtp2	173,461.82 gal 22,203,113 oz.
Vo Unrestrained		76,308 gal	1,729 gal	94,924 gal		
Fwp 1		1.001876	1.001876	1.001876		
Fpp 1		1.001412	1.001282	1.001631		
Fpt 1		1.000073	1.000073	1.000073		
Fwt 1		1.000582	1.000582	1.000582		
Fpwt 1 = Fpt/Fwt		0.999491	0.999491	0.999491		
Vtp 1 = Vo(Fwp)(Fpp)(Fpwt)		76,520 gal	1,734 gal	95,209 gal		
Fwp 2		1.001873	1.001873	1.001873		
Fpp 2		1.001410	1.001280	1.001629		
Fpt 2		1.000073	1.000073	1.000073		
Fwt 2		1.000582	1.000582	1.000582		
Fpwt = Fpt/Fwt		0.999491	0.999491	0.999491		
Vtp = Vo(Fwp)(Fpp)(Fpwt)		76,520 gal	1,734 gal	95,208 gal		

Combined Pipe

Sum:	Vo	176,108.62 gal 22,541,903 oz.	Vtp1	176,618.46 gal 22,607,163 oz.	Vtp2	176,618.95 gal 22,607,226 oz.
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Pipe Segment Volume Allowance Calculations

Company	Pacific Gas and Electric Company	Job Number	41474079
Construction Co.	ARB	Job Number	0629-53-3500-96
Hydro. Test Co.	Contra Costa Inspection Company	Project No.	PG&E 5-21-11
Test Section	PG&E Line SP-5 T-96B (West) Retest		WATER
File Name	RCP 61362 - 96B (West) Retest		

General Pipe Data

Description	Segment					
	1	2	3	4	5	6
Restrained or Unrestrained?	Unrestrained	Restrained	Unrestrained	Restrained	Restrained	Unrestrained
Outside Diameter	24.000 in.	24.000 in.	24.000 in.	24.000 in.	24.000 in.	24.000 in.
Wall Thickness	0.375 in.	0.313 in.	0.313 in.	0.344 in.	0.271 in.	0.500 in.
Inside Diameter	23.250 in.	23.375 in.	23.375 in.	23.312 in.	23.458 in.	23.000 in.
Spec./Grade	API5L-X60	API5L-X42	API5L-X42	API5L-X42	API5L-X42	API5L-X52
Length Unstrained	105.00 ft		16.00 ft			22 ft
Length Restrained		3,423 ft		78 ft	4,228 ft	
Temperature -- On Test	66 °F	65 °F	66 °F	65 °F	65 °F	66 °F
Temperature -- End of Test	67 °F	66 °F	67 °F	66 °F	66 °F	67 °F
Pressure -- On Test						
Pressure -- End of Test						

Unrestrained Pipe

Sum:	Vo	3,147.28 gal 402,851 oz.	Vtp1	3,145.79 gal 402,661 oz.	Vtp2	3,145.54 gal 402,628 oz.
Vo Unrestrained	2,316 gal		357 gal			475 gal
Fwp 1	1.000000		1.000000			1.000000
Fpp 1	1.000000		1.000000			1.000000
Fpt 1	1.000109		1.000109			1.000109
Fwt 1	1.000582		1.000582			1.000582
Fpwt 1 = Fpt/Fwt	0.999527		0.999527			0.999527
Vtp 1 = Vo(Fwp)(Fpp)(Fpwt)	2,314.67 gal		356.51 gal			474.60 gal
Fwp 2	1.000000		1.000000			1.000000
Fpp 2	1.000000		1.000000			1.000000
Fpt 2	1.000127		1.000127			1.000127
Fwt 2	1.000681		1.000681			1.000681
Fpwt = Fpt/Fwt	0.999447		0.999447			0.999447
Vtp = Vo(Fwp)(Fpp)(Fpwt)	2,314.48 gal		356.49 gal			474.57 gal

Restrained Pipe

Sum:	Vo	172,961.34 gal 22,139,052 oz.	Vtp1	172,894.11 gal 22,130,446 oz.	Vtp2	172,876.97 gal 22,128,252 oz.
Vo Restrained		76,308 gal	1,729 gal	94,924 gal		
Fwp 1		1.000000	1.000000	1.000000		
Fpp 1		1.000018	1.000018	1.000018		
Fpt 1		1.000061	1.000061	1.000061		
Fwt 1		1.000467	1.000467	1.000467		
Fpwt 1 = Fpt/Fwt		0.999593	0.999593	0.999593		
Vtp 1 = Vo(Fwp)(Fpp)(Fpwt)		76,278 gal	1,729 gal	94,887 gal		
Fwp 2		1.000000	1.000000	1.000000		
Fpp 2		1.000022	1.000022	1.000022		
Fpt 2		1.000073	1.000073	1.000073		
Fwt 2		1.000582	1.000582	1.000582		
Fpwt = Fpt/Fwt		0.999491	0.999491	0.999491		
Vtp = Vo(Fwp)(Fpp)(Fpwt)		76,271 gal	1,729 gal	94,878 gal		

Combined Pipe

Sum:	Vo	176,108.62 gal 22,541,903 oz.	Vtp1	176,039.90 gal 22,533,107 oz.	Vtp2	176,022.51 gal 22,530,881 oz.
1 °F Change	17.39 gal					2,226.35 oz.



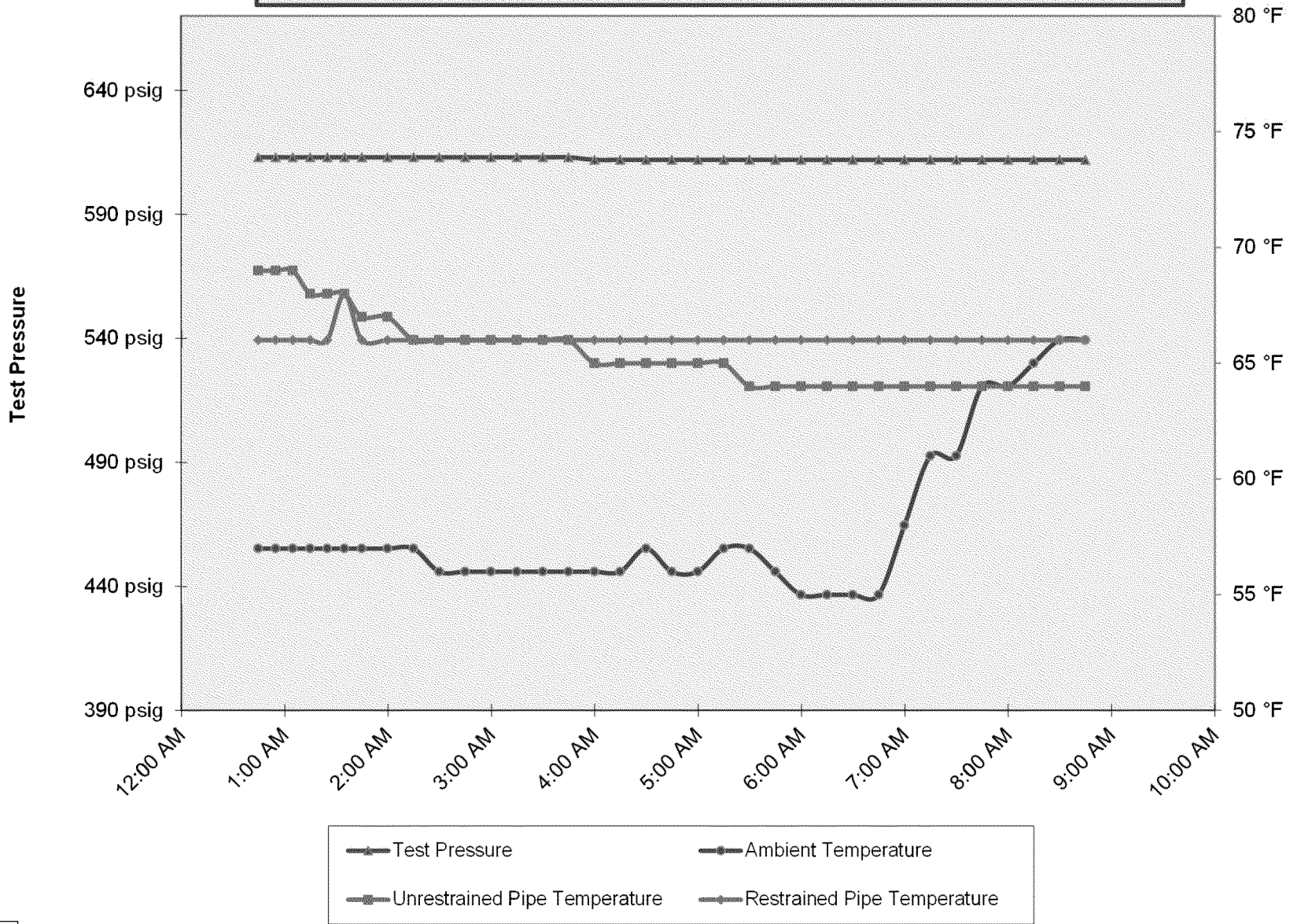
Hydrostatic Test Pipe Data Table

Pipe Type	Length	Restrained / Unrestrained	Outside Diameter	Wall Thickness	Specification & Grade	Pipe Yield Pressure	Material	Joint Type	Seam Type
1	105 ft	Unrestrained	24.000 in.	0.3750 in.	API5L-X60	1,875 psig	Steel	Arc Weld	SM
2	3,423 ft	Restrained	24.000 in.	0.3125 in.	API5L-X42	1,094 psig	Steel	Arc Weld	DSAW
3	16 ft	Unrestrained	24.000 in.	0.3125 in.	API5L-X42	1,094 psig	Steel	Arc Weld	DSAW
4	78 ft	Restrained	24.000 in.	0.3440 in.	API5L-X42	1,204 psig	Steel	Arc Weld	DSAW
5	4,228 ft	Restrained	24.000 in.	0.2710 in.	API5L-X42	949 psig	Steel	Arc Weld	DSAW
6	22 ft	Unrestrained	24.000 in.	0.5000 in.	API5L-X52	2,167 psig	Steel	Arc Weld	SM

Hydrostatic Test Project Owner & Participants

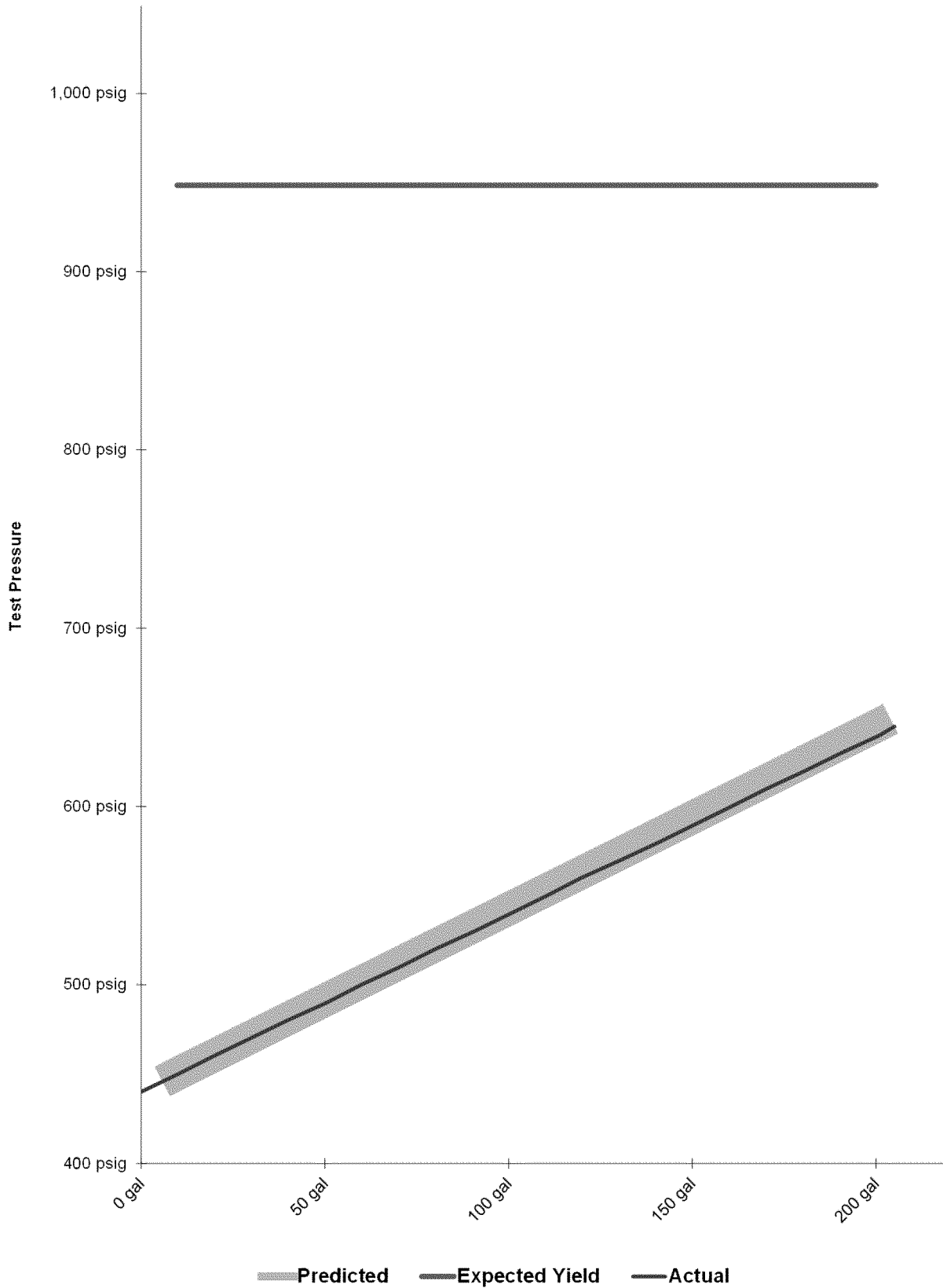
Owner Company	Pacific Gas and Electric Company	Job Number
Address	3600 Adobe Rd Petaluma, Ca 94954 Attention: Joel Mannie	41474079
Construction Company	ARB	Job Number
Address	1875 Loveridge Road Pittsburg, CA 94565 Attention: Redacted	0629-53-3500-96
Hydrostatic Test Co.	Contra Costa Inspection Company	Project No.
Address	2820 La Jolla Drive Antioch, California 94531 Attention: Redacted	PG&E 5-21-11
Test Section	PG&E Line SP-5 T-96B (West) Retest From: 127+76 To: 206+00	
File Name	RCP 61362 - 96B (West) Retest	

PG&E Line SP-5 T-96B (West) Retest



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RCP 61362-96B West retest(2).xlsm
PlotT

**Spike Pressure Test
Stress Strain Curve -- PG&E Line SP-5 T-96B (West) Retest**



Work in Progress

If you have any questions about this work please visit www.pge.com/gassystem or call us at 1-888-743-7431

Pacific Gas and Electric Company's highest responsibility in 2011 and beyond is to enhance the safety of our operations. As part of this effort, PG&E is performing a hydrostatic pressure test on a section of natural gas pipeline. Work will last a few weeks.

A hydrostatic pressure test involves pressurizing a section of pipe with water to a much higher level than the pipe will ever operate at with natural gas. This verifies the capability of a pipeline to safely operate and can also reveal weaknesses that could lead to defects and leaks. If the pipe section does not meet acceptable standards during the test, it will be replaced with new pipe that has already passed a pressure test.

Para ayuda en español por favor llame al 1-800-660-6789.

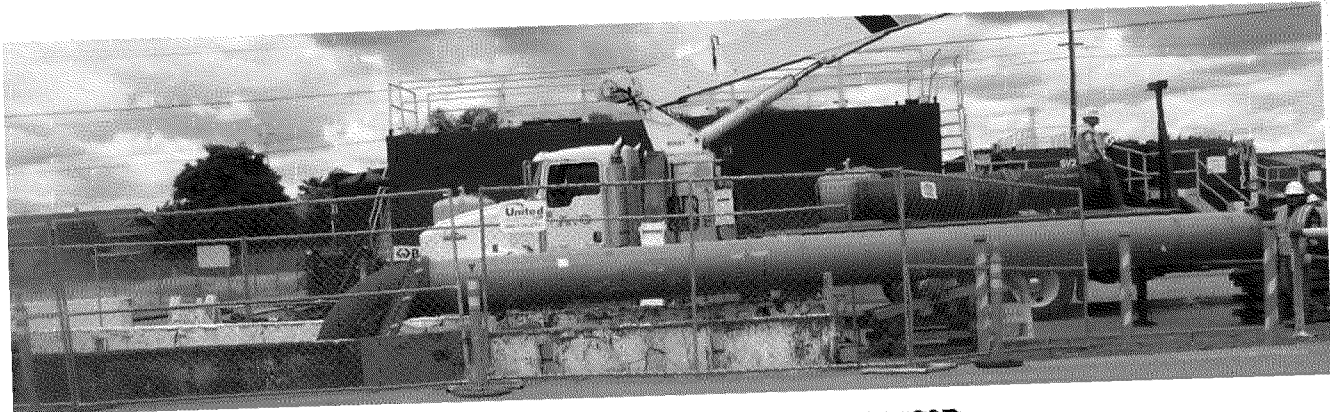
要用粵語/國語請求協助,請致電 1-800-893-9555.

Kung kailangang makipag-usap sa nakakasalita ng Tagalog, tumawag sa 1-888-743-7431.

Để được giúp đỡ bằng tiếng Việt, xin gọi 1-800-298-8438.

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Test Section 96B Map

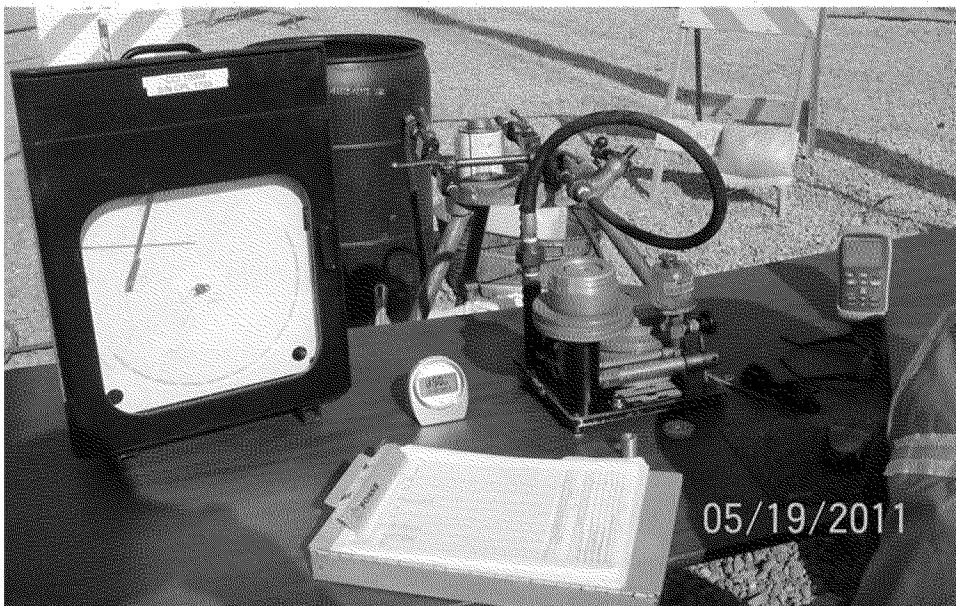


Unrestrained Pipe Segment Test Section 96B

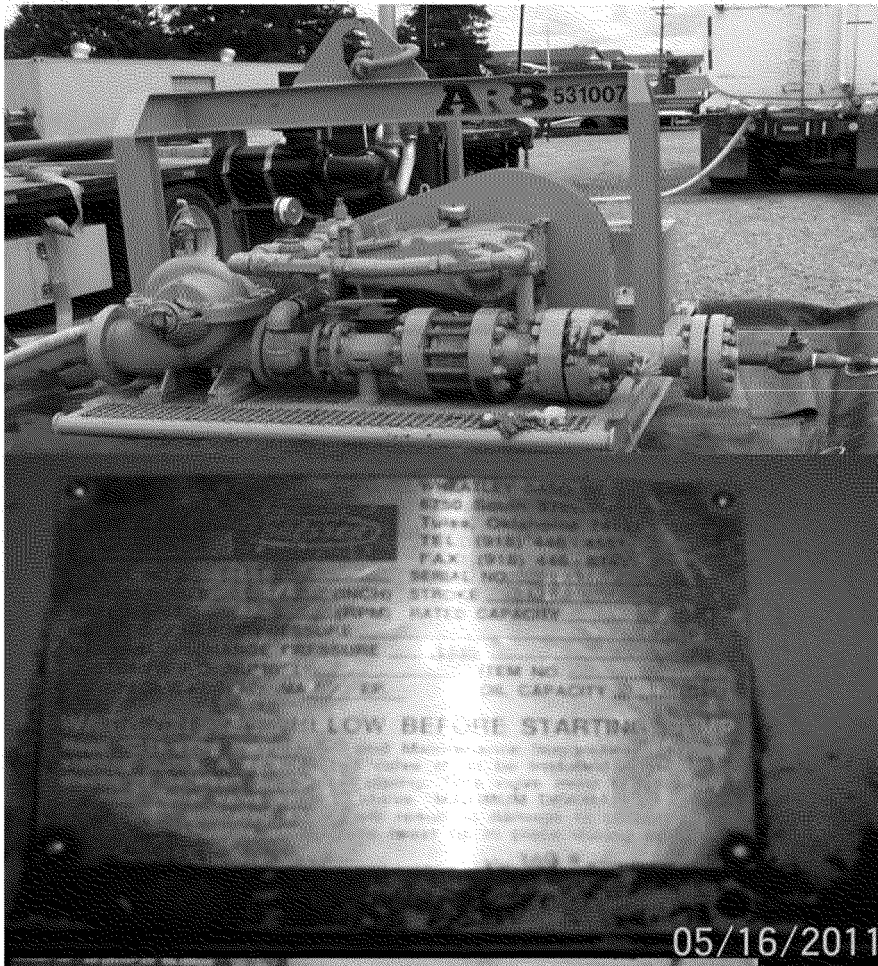


**Test Segment 96B
Test Header and
pressure Monitor
Connection**

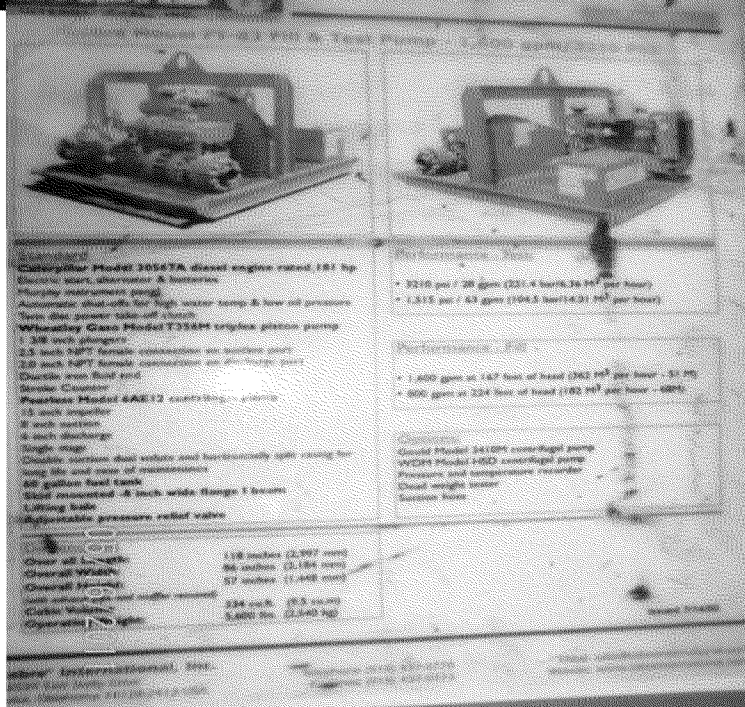
Unrestrained Pipe Temperature Recorder Chart



**Test Segment 96B
Pressure Chart
Recorder, Dead
Weight Tester and
Fluke Ambient
Temperature
Electronic
Thermometer**



Test Segment 96B Pressure Pump with Documentation





Hydrostatic Test Log Sheet

Owner Company	PG + E	Job Number	41474079
Construction Co.	ARB	Job Number	0629-53-3500-96
Testing Co.	CONTRA COSTA INSPECTION	Job Number	5-21-11

Test Section	Name	T96-SP5-B	
		Station (0+00)	Elevation (Feet)
	Test Location	SP-5 from 0.00 - 2.40, 127+26 49'	
	Begin	127+26	49
	End	206+00	67
	High Elevation	206+00	67
	Low Elevation	19 138+00	19

Pipe Data	Section	Length (ft.)	O. D. (in.)	W.T. (in.)	Restrained (ft.)	Unrestrained (ft.)	Grade	Seam/Joint Type
	1	105	24	.375		105	X-60	SM / ARC WELD
	2	3423	24	.312	3423		X-42	DSAW / ARC WELD
	3	16	24	.312		16	X-42	DSAW / ARC WELD
	4	78	24	.344	78		X-42	DSAW / ARC WELD
	5	4228	24	.271	4228		X-42	DSAW / ARC WELD
	6	22	24	.500		22	X-52	SM / ARC WELD
	7							
	8							
	9							
	10							
	11							

Test Period	Date	5/21/11	Time	12:45 A.M.	Test Medium	Water	<input checked="" type="checkbox"/>
	Begin	5/21/11		8:45 A.M.		Nitrogen	<input type="checkbox"/>
	End	5/21/11				Other	<input type="checkbox"/>

Test Instrumentation	Description	Calibration Checked	Serial Number	Date Calibrated/Certified	Installation Correct
	Dead Weight Pressure Tester		S/N 2845	11-29-10	<input checked="" type="checkbox"/> Yes
	Pressure Recorder	<input checked="" type="checkbox"/> Yes	S/N 1703	5-2-11	<input checked="" type="checkbox"/> Yes
	Ambient Temperature Recorder	<input checked="" type="checkbox"/> Yes	FLUKE 54	SELF CAL.	<input checked="" type="checkbox"/> Yes
	Restrained Pipe Temperature Recorder	<input checked="" type="checkbox"/> Yes	S/N 1701	5-2-11	<input checked="" type="checkbox"/> Yes
	Unrestrained Pipe Temperature Recorder	<input checked="" type="checkbox"/> Yes	S/N 5959	3-2-11	<input checked="" type="checkbox"/> Yes

Hydrostatic Test Log

Log No.	Time	Test Pressure (psig)	Temperature (°F)			Volume		Comments	Model Check: Is test good?
			Ambient	Pipe		<input type="checkbox"/> Ounces	<input type="checkbox"/> Gallons		
				Restrained	Unrestrained	Bleed	Inject		
1	0045	613	57	66	70				
2	0055	613	57	66	69			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
3	0105	613	57	66	69			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
4	0115	613	57	66	68			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5	0125	613	57	66	68			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
6	0135	613	57	66	68			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
7	0145	613	57	66	67			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
8	0200	613	57	66	67			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
9	0215	613	57	66	66			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
10	0230	613	56	66	66			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
11	0245	613	56	66	66			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	

Log No.	Time	Test Pressure (psig)	Temperature (°F)			Volume		Comments	Model Check: Is test good?
			Ambient	Pipe		<input type="checkbox"/> Ounces	<input type="checkbox"/> Gallons		
				Restrained	Unrestrained	Bleed	Inject		
12	0300	613	56	66	66			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
13	0315	613	56	66	66			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
14	0330	613	56	66	66			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
15	0345	613	56	66	66			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
16	0400	612	56	66	65			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
17	0415	612	56	66	65			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
18	0430	612	57	66	65			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
19	0445	612	56	66	65			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
20	0500	612	56	66	65			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
21	0515	612	57	66	65			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
22	0530	612	57	66	64			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
23	0545	612	56	66	64			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
24	0600	612	55	66	64			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
25	0615	612	55	66	64			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
26	0630	612	55	66	64			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
27	0645	612	55	66	64			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
28	0700	612	58	66	64			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
29	0715	612	61	66	64			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
30	0730	612	61	66	64			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
31	0745	612	64	66	64			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
32	0800	612	64	66	64			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
33	0815	612	65	66	64			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
34	0830	612	66	66	64			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
35	0845	612	66	66	64			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
36								<input type="checkbox"/> Yes <input type="checkbox"/> No	
37								<input type="checkbox"/> Yes <input type="checkbox"/> No	
38								<input type="checkbox"/> Yes <input type="checkbox"/> No	
39								<input type="checkbox"/> Yes <input type="checkbox"/> No	
40								<input type="checkbox"/> Yes <input type="checkbox"/> No	
41								<input type="checkbox"/> Yes <input type="checkbox"/> No	
42								<input type="checkbox"/> Yes <input type="checkbox"/> No	
43								<input type="checkbox"/> Yes <input type="checkbox"/> No	
44								<input type="checkbox"/> Yes <input type="checkbox"/> No	
45								<input type="checkbox"/> Yes <input type="checkbox"/> No	
46								<input type="checkbox"/> Yes <input type="checkbox"/> No	
47								<input type="checkbox"/> Yes <input type="checkbox"/> No	
48								<input type="checkbox"/> Yes <input type="checkbox"/> No	
49								<input type="checkbox"/> Yes <input type="checkbox"/> No	
50								<input type="checkbox"/> Yes <input type="checkbox"/> No	

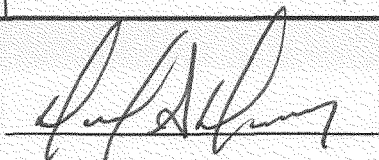
Was a leak observed during test Period? Yes No

If "Yes", Explain:

High Test Pressure: 613
Low Test Pressure: 612

Certification:

Test Supervisor:



Test Witness:

Date: 5-21-11
Redacted

OD	WT	Grade and Long Seam	Length	Exposed (included in total length)
24	0.375	API 5L, GR X-60, DSAW	104.6	104.6
24	0.3125	API 5L, Gr X-42, DSAW	3430	15.5
24	0.344	API 5L, Gr X-42, DSAW	78	
24	0.271	API 5L, Gr X-42, DSAW	4228	

Vertical
→

24 0.500 API 5L, Gr X-52 Sm 22 22

Test Heads



RE-TEST SEQUENCE OF OPERATIONS (WEST)

Table with 4 columns and 2 rows. Row 11: Upon PG&E approval, pressuring shall begin to a pressure 20 psi above the minimum test pressure (613 psig at the test location). Row 12: The pipeline is on test and will be held until RCP certifies that the test has successfully passed (minimum of 8 hours).

HYDROSTATIC TEST CERTIFICATION

Table with 4 columns and 1 row. Row 16: Pressure, temperature, and volume readings to be provided to the test certification company for test certification.

HOLD POINT

TEST DOES NOT PROCEED UNTIL SUPERVISOR APPROVAL

SUPERVISOR HAS VERIFIED THAT PRESSURE, TEMPERATURE, AND VOLUME READINGS HAVE BEEN PROVIDED TO RCP FOR TEST CERTIFICATION.

TEST SUPERVISOR SIGNS NAME HERE FOR APPROVAL: _____

NOTE: Upon receiving the Test Supervisor Signature above, resume operations on Page 18 of 20 of PG&E Line SP-5 T-96 Hydrostatic Test Form.



NOTE: The following sequence of operations shall commence following the HOLD POINT on Page 17 of 20 of PG&E Line SP-5 T-96 Hydrostatic Test Form.

RE-TEST SEQUENCE OF OPERATIONS (WEST)

Table with 10 rows and 4 columns. Row 1: The official test site is Hillcrest Yard (Location B). Row 2: The verification station is located at Antioch Town Station (Location A). Row 3: Confirm barriers and related signage placed along the test section to prevent public access within 50-feet of the test head and exposed pipe during line pressurization. Row 4: Confirm that barriers are located at Hillcrest Yard (Location B) and Antioch Town Station (Location A). Row 5: Limit test sites to the testing crew, third party witness, and Company inspector. The test site must be located a minimum of 50-feet from any exposed portion of the pipeline under test. Caution ribbon shall delineate the test area. Row 6: Deadweight tester, pressure gauges, and 24-hour recorder shall be connected to the test section at Hillcrest Yard (Location B). The manifold must be capable of isolating all the instruments from the pipeline and each other. The pressure recorder must be calibrated against the dead weight prior to the start of the test in accordance with Numbered Document A-37. Row 7: Dig a post hole next to the pipe, down to the level of the bottom of the pipe and a minimum of 100-feet from the test location. Place the temperature sensor in the hole near the bottom of the pipe and backfill with sand. Additionally, a thermometer or other temperature measuring instrument must be positioned at the location for recording ambient temperature. Allow for the temperature to stabilize. Row 8: Additional pressure and temperature recorders shall be connected at Antioch Town Station (Location A). The recorders shall be positioned low to the ground and shaded to limit the ambient effects on the measurements. Insulation shall be provided as appropriate. Row 9: Visually inspect pressurizing equipment, hoses, and other associated equipment before pressurization. Make sure the equipment is properly sized and rated for the maximum test pressure and document as required. Row 10: Determine the volume associated with each stroke of the test pump. Count strokes to validate the amount of water added or subtracted to the pipeline while under test. A graduated cylinder may be used as an alternate to counting pumps strokes. Confirm the method and system is in place prior to starting the test.