



Pacific Gas and Electric Company
Gas Pipeline Facilities Strength Test Pressure Report
 (For Pipeline Facilities Designed to Operate over 100 PSIG)

62-4921 (Rev. 2/04)
 California Gas Transmission
 (Use in Accordance with Gas Standard A-34 and GO 112-D)

Sheet 1 of 2

PART I - DESIGN DATA (TO BE PREPARED BY PROJECT ENGINEER)										
Feeder Main Number, Line Number, or Station Name Line 114			Area 2		Division/District DIABLO			Job Number 41502566		Date Job Authorized 09/09/2011
Description of Job -- Include Reference Drawing Numbers, and Pipeline Mileposts Test 3 - Hydrostatically test tie-in piping, hydrostatic test piping and existing 24" L-132. Existing material listed; ie. pipe, elbows, sleeves, are from the "Material of Record". (refer to DWG41502566-Sheet 5) Revision 2 - Added 1.05" OD Pipe and changed minimum and maximum pressure. Hydrotest L-114 from MP 16.5233 - 16.5878 Brentwood Terminal, Brentwood, CA. T-19										
Location Class 3		Design Factor (F) .5		MAOP to be Established for this Piping by this Test 670 PSIG				Future Design Pressure 720 PSIG		
STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)		Max. Elevation 152 Ft.		Min. Elevation 128 Ft.		Elev. Diff. 24 Ft.		Static Head Calculation For Water 0.433 X Elev. Diff. = 10 PSIG Other (Specify) _____ X Elev. Diff. = _____ PSIG		
Pipe Specification				Pipe Spec. and Footage Verified In Field		% of SMYS			Pressure to Give 90% SMYS	
Size O.D.	W.T.	API or ASTM Grade Long Seam (ERW, DSAW, Seamless, Etc.)		Footage to Be Tested		At MAOP	At Min. Test Press.	At Max. Test Press.		
24.00	0.500	API 5L,X-60, DSAW (Item#110)		23'	21.9	26.80	40.20	44.40	2250	
24.00	0.375	API 5L,X-60, DSAW (Item#100)		18'	18.7	35.73	53.60	59.20	1688	
24.00	0.375	Elbow, Y-60, LR (Item#101)		2 Ea.	720	35.73	53.60	59.20	1688	
24.00	0.500	API 5L, X-42, DSAW (Item#1)		312.5'	315.6 MOR	38.29	57.43	63.43	1575	
24.00	0.375	API 5L,X-60, DSAW (Item#2)		71'	71.9 MOR	35.73	53.60	59.20	1688	
24.00	0.500	Elbow, Unknown Grade (Item#3)		2 Ea.	MOR	-	-	-	-	
24.00	0.375	Elbow, Y-60, LR (Item#4)		2 Ea.	1 PER PROFILE	35.73	53.60	59.20	1688	
24.00	0.375	Tee, 24" x 24" x 24", Y-60 (Item#5)		1 Ea.	MOR	35.73	53.60	59.20	1688	
24.00	0.375	Valve, ANSI 300 (Item#6)		1 Ea.	MOR	-	-	-	-	
4.500	0.237	API 5L.GRB, SMLS (Item#8)		30'	25 MOR GTS	18.17	27.26	30.11	3318	
4.500	0.237	Valve, ANSI 300 (Item#9)		1 Ea.	MOR	-	-	-	-	
Minimum Test Pressure @ Max. Elevation				1005 PSIG		Test Fluid To Be Used WATER		MINIMUM TEST DURATION - UNDER 30% SMYS (1 HR. MINIMUM) - 30% SMYS & OVER (8 HRS. MINIMUM) - PREINSTALLATION TEST (SEE ATTACHMENT 'A', GAS STD. A-34)		8 HOURS
Maximum Test Pressure @ Min. Elevation				1110 PSIG						
Drawn By: Redacted		Date: 9/9/11		For Information or Changes, Call: Mark Cabral (925) 588-3640			Approved By: Mark Cabral		Date: 9-9-11	
PART II - TEST DATA (TO BE PREPARED BY PERSON SUPERVISING TEST AT TIME OF TEST)										
Test Conducted By: Redacted						Note: Minimum test pressure and duration are not to be changed without written approval.				
Time and Date Test Pressure Reached		11:30 AM 9-16-11		Elevation at Test Point 128 FT		Min. Required Test Press. At Test Point (1) 1015.4 PSIG		Max. Allowable Test Press at Test Point (4) 1110.0 PSIG		
Time and Date Test Ended		7:40 PM 9-16-11		Max. Elevation in Test Section 152 FT		Min. Indicated Test Pressure (2) 1020 PSIG		Max. Indicated Test Pressure (5) 1150 PSIG		
Actual Duration of Test		8 HR 11 MIN		Min. Elevation in Test Section 128 FT		Min. Test Pressure at Max. Elevation (3) 1009.6 PSIG		Max. Test Pressure at Min. Elevation (6) 1150.0 PSIG		
Test Fluid Used WATER				Pipe Specification and Footage Verified (See Part I) R28 A591						
Make, Range, and Serial No. of Pressure Recording Gauge CLP, 0-2000 PSI 1713			Date Last Calibrated 6-2-11		Make, Range, and Serial No. of Dead Weight Tester (See Note 7) AMETEK, 0-3000 PSI HL-6301			Date Last Calibrated 6-7-11		
Test Supervised Redacted			Date: 9-16-11		Approved By: Jed Morrison 9-16-11					
PUT SCHEMATIC PIPING SKETCH ON BACK OF THIS SHEET SHOW LOCATION OF FACILITY TESTED, MINIMUM AND MAXIMUM ELEVATION IN FEET, MILE POINTS, VALVE NUMBERS AND INCORPORATED AREAS. USE AN ADDITIONAL SHEET IF NECESSARY (SHOW REFERENCE NUMBERS ON FACE OF ALL DRAWINGS AND ATTACHMENTS). FOR STATION PIPING, FABRICATED UNITS AND SHORT SECTIONS OF PIPE, ALSO SHOW A DETAILED SKETCH OF EACH ASSEMBLY TESTED.										
NOTES: (1) Add the static head due to elevation difference (between test point and maximum elevation) to "minimum test pressure at maximum elevation" from PART I. (2) Use lowest pressure on test gauge at any time during test. (3) Subtract static head due to elevation difference (between test point and maximum elevation) from minimum indicated test pressure. (4) Subtract static head due to elevation difference (between test point and minimum elevation) from "maximum test pressure at minimum elevation" from PART I. (5) Highest pressure on test gauge at any time during test. (6) Add static head due to elevation difference (between test point and minimum elevation) to maximum indicated test pressure. (7) A dead weight tester is only required when testing to a pressure which produces a stress level of 90% of SMYS or greater. However, if a dead weight tester is used on any test, enter the information in the space provided above.					DISTRIBUTION JOB FILE (AT SPONSORING ORGANIZATION) GSM&TS RESPONSIBLE DISTRICT SUPERINTENDENT PROJECT MANAGER/PROJECT ENGINEER TECHNICAL & CONSTRUCTION SERVICES - ASSIGNED JOBS ONLY CAPITAL ACCOUNTING (FOREMAN'S COPY OF JOB) RECORDS SECTION (WC), GSM&TS REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING					



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Sheet 2 of 2

PART I - DESIGN DATA (TO BE PREPARED BY PROJECT ENGINEER)

Feeder Main Number, Line Number, or Station Name Line 114	Area 2	Division/District DIABLO	Job Number 41502566	Date Job Authorized 09/09/2011
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Description of Job -- Include Reference Drawing Numbers, and Pipeline Mileposts
Test 3 -- Hydrostatically test tie-in piping, hydrostatic test piping and existing 24" L-132. Existing material listed; ie. pipe, elbows, sleeves, are from the "Material of Record". (refer to DWG41502566-Sheet 5) Revision 2 -- Added 1.05" OD Pipe and changed minimum and maximum pressure.

Hydrotest L-114 from MP 16.5233 - 16.5878 Brentwood Terminal, Brentwood, CA. *T-19*

Location Class 3	Design Factor (F) .5	MAOP to be Established for this Piping by this Test 670 PSIG	Future Design Pressure 720 PSIG
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STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)	Max. Elevation 152 Ft.	Static Head Calculation For Water 0.433 X Elev. Diff. = 10 PSIG Other (Specify)
	Min. Elevation 128 Ft.	
	Elev. Diff. 24 Ft.	

Size		Pipe Specification		Footage to Be Tested	Pipe Spec. and Footage Verified In Field	% of SMYS			Pressure to Give 90% SMYS
O.D.	W.T.	API or ASTM Grade Long Seam (ERW, DSAW, Seamless, Etc.)				At MAOP	At Min. Test Press.	At Max. Test Press.	
4.500	0.237	Elbow, GRB, 45 DEGREE	(Item#10)	1 Ea.	MOR	18.17	27.26	30.11	3318
4.500	0.237	Elbow, GRB, 90 DEGREE	(Item#12)	1 Ea.	MOR	18.17	27.26	30.11	3318
8.625	0.322	API 5L, GRB, SMLS	(Item#13)	9'	MOR	25.64	38.46	42.47	2352
24.00	0.375	Elbow, Y-60, 90 DEG, 3R	(Item#14)	1 Ea.	MOR	35.73	53.60	59.20	1688
24.00	0.375	Elbow, Y-60, 45 DEG, 3R	(Item#14A)	1 Ea.	MOR	35.73	53.60	59.20	1688
8.625	0.322	Valve, ANSI 300	(Item#15)	1 Ea.	MOR	-	-	-	-
4.500	0.337	API 5L, GR B SMLS	(item #7)	1'	2.6 PER GTS	12.78	19.17	21.17	4718
1.05	0.154	API 5L, GR B SMLS		25"	0.730	6.53	9.79	10.81	9240
24.00	0.375	CAP Y-60	Item 102	1		35.73	53.60	59.20	1688
4.500	0.237	CAP GRB	Item 108	1		18.17	27.26	30.11	3318
4.500	0.237	API 5L GRB SMLS		.8		18.17	27.26	30.11	3318

Minimum Test Pressure @ Max. Elevation 1005 PSIG	Test Fluid To Be Used WATER	MINIMUM TEST DURATION - UNDER 30% SMYS (1 HR. MINIMUM) - 30% SMYS & OVER (8 HRS. MINIMUM) - PREINSTALLATION TEST (SEE ATTACHMENT 'A', GAS STD. A-34)	8 HOURS
Maximum Test Pressure @ Min. Elevation 1110 PSIG			

Redacted *9/9/11* For Information or Changes, Call: **Mark Cabral (925) 588-3640** Approved By: *Mark Cabral* Date: *9-9-11*

PART II - TEST DATA (TO BE PREPARED BY PERSON SUPERVISING TEST AT TIME OF TEST)

TEST conducted by **Redacted** *CCE* Note: Minimum test pressure and duration are not to be changed without written approval.

Time and Date Test Pressure Reached <i>11:30 AM 9-16-11</i>	Elevation at Test Point 128 FT	Min. Required Test Press. At Test Point (1) 1015.4 PSIG	Max. Allowable Test Press. at Test Point (4) 1110.0 PSIG
Time and Date Test Ended <i>7:40 PM 9-16-11</i>	Max. Elevation in Test Section 152 FT	Min. Indicated Test Pressure (2) 1020 PSIG	Max. Indicated Test Pressure (5) 1109.0 PSIG
Actual Duration of Test <i>8 HR 10 MIN</i>	Min. Elevation in Test Section 128 FT	Min. Test Pressure at Max. Elevation (3) 1009.6 PSIG	Max. Test Pressure at Min. Elevation (6) 1109.0 PSIG

Test Fluid Used **WATER** Pipe Specification and Footage Verified (See Part I)
R22 A-591

Make, Range, and Serial No. of Pressure Recording Gauge CLP, 0-2000 PSI 1713	Date Last Calibrated 6-2-11	Make, Range, and Serial No. of Dead Weight Tester (See Note 7) AMETER, 0-3000 PSI HL-6301	Date Last Calibrated 6-7-11
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Test Supervised By: **Redacted** Date: *9-16-11* Approved By: *John M... 9-28-11*

PUT SCHEMATIC PIPING SKETCH ON BACK OF THIS SHEET
 SHOW LOCATION OF FACILITY TESTED, MINIMUM AND MAXIMUM ELEVATION IN FEET, MILE POINTS, VALVE NUMBERS AND INCORPORATED AREAS. USE AN ADDITIONAL SHEET IF NECESSARY (SHOW REFERENCE NUMBERS ON FACE OF ALL DRAWINGS AND ATTACHMENTS). FOR STATION PIPING, FABRICATED UNITS AND SHORT SECTIONS OF PIPE, ALSO SHOW A DETAILED SKETCH OF EACH ASSEMBLY TESTED.

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| <p>NOTES:</p> <ol style="list-style-type: none"> Add the static head due to elevation difference (between test point and maximum elevation) to "minimum test pressure at maximum elevation" from PART I. Use lowest pressure on test gauge at any time during test. Subtract static head due to elevation difference (between test point and maximum elevation) from minimum indicated test pressure. Subtract static head due to elevation difference (between test point and minimum elevation) from "maximum test pressure at minimum elevation" from PART I. Highest pressure on test gauge at any time during test. Add static head due to elevation difference (between test point and minimum elevation) to maximum indicated test pressure. A dead weight tester is only required when testing to a pressure which produces a stress level of 90% of SMYS or greater. However, if a dead weight tester is used on any test, enter the information in the space provided above. | <p>DISTRIBUTION</p> <p>JOB FILE (AT SPONSORING ORGANIZATION)</p> <p>GSM&TS RESPONSIBLE DISTRICT SUPERINTENDENT</p> <p>PROJECT MANAGER/PROJECT ENGINEER</p> <p>TECHNICAL & CONSTRUCTION SERVICES - ASSIGNED JOBS ONLY</p> <p>CAPITAL ACCOUNTING (FOREMAN'S COPY OF JOB)</p> <p>RECORDS SECTION (WC), GSM&TS</p> <p>REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING</p> |
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