Pacific Gas and Electric Company

Gas Pipeline Facilities Strength Test Pressure Report

(For Pipeline Facilities Designed to Operate over 100 PSIG)

FINAL

62-4921 (Rev. 2004)
California Gas Transmission
(Use in Accordance with Gas Standard A-36 and GO 112D)

Sheet 1 of 1

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

Feeder Main Number, Line Number, or Station Name	Area	Division/District	Job Number	Date Job Authorized
L-303	2	Mission	41592685	October 31, 2011

Description of Job – Include Reference Drawing Numbers, and Pipeline Mileposts
Test 1 – Hydrostatically test temporary cut caps.

Hydrotest L-303 from MP Redacted Livermore, CA (Test section 121)

Location Class	Design Factor (F)	MAOP to be Established for this Piping by this Test	Future Design Pressure
3	.5	731 PSIG	877 PSIG

STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)			Static Head Calculation		
	Max. Elevation	N/A Ft.	For Water	0.433 X Elev. Diff. =	0 PSIG
	Min. Elevation	N/A Ft.	Other (Specify)	X Elev. Diff. =	PSIG
	Elev. Diff.	N/A Ft.			

Pipe Specification: Size O.D.	Size W.T.	API or ASTM Grade Long Seam (ERW, DSAW, Seamless, Etc.)	Footage to Be Tested	Pipe Spec. and Footage Verified In Field	% of SMYS: At MAOP	At Min. Test Press.	At Max. Test Press.	Pressure to Give 90% SMYS
36.00	.500	API 5L, X-65, DSAW (Item #100)	8'	CMX	40.49	60.76	66.46	1625
36.00	.500	Cap, Y-65 CKW (Item #153)	2 ea.	CMX	40.49	60.76	66.46	1625
4.50	.237	API 5L, GR B, ~~SMLS~~ ERW (Item #114)	8'	CMX	19.83	29.76	32.55	3318
4.50	.237	Cap, GR B (Item #165)	2 ea.	CMX	19.83	29.76	32.55	3318
6.625	0.280	PIPE, GR B API 5L	2ea. 6"	CMX	24.71	37.08	40.56	2662 (13)
6.625	300#	Flange, Weld Neck 6"	2ea.	CMX	—	—	—	—
6.625	300#	Valve, Ball Gear Operated	2ea.	CMX	—	—	—	—
6.625	0.280							

Minimum Test Pressure @ Max. Elevation	1097 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): 4 HOURS
Maximum Test Pressure @ Min. Elevation	1200 PSIG		

Redacted Date: 10-31-11 For Information or Changes, Call: Mark Cabral (925) 588-3640 Approved By: [signature] Date: 10-31-11

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	10:15 AM 11-9-11	Elevation at Test Point	0 FT	Min. Required Test Press. At Test Point (1)	1097	~~1200~~ PSIG	Max. Allowable Test Press at Test Point (4)	1200 PSIG
Time and Date Test Ended	2:30 PM 11-9-11	Max. Elevation in Test Section	0 FT	Min. Indicated Test Pressure (2)	1123	PSIG	Max. Indicated Test Pressure (5)	1150 PSIG
Actual Duration of Test	4 HOURS 15 MINUTES	Min. Elevation in Test Section	0 FT	Min. Test Pressure at Max. Elevation (3)	1123	~~1097~~ PSIG	Max. Test Pressure at Min. Elevation (6)	1150 ~~1200~~ PSIG

Test Fluid Used: WATER

Pipe Specification and Footage Verified (See Part I): CMX

Make, Range, and Serial No. of Pressure Recording Gauge	Date Last Calibrated	Make, Range, and Serial No. of Dead Weight Tester (See Note 7)	Date Last Calibrated
Barton 9/2000 242E-4001	10-21-11	AMETEK 25-3000 HL+4321	10-18-11

Test Supervised By: Redacted Date: 11-9-11 Approved By: Redacted Date: 11-28-11

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.

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), GMS&TS
REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING

Pacific Gas and Electric Company

Gas Pipeline Facilities Strength Test Pressure Report

(For Pipeline Facilities Designed to Operate over 100 PSIG)

FINAL

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

Sheet 1 of 1

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

Feeder Main Number, Line Number, or Station Name	Area	Division/District	Job Number	Date Job Authorized
L-303	2	Mission	41592685	October 31, 2011

Description of Job – Include Reference Drawing Numbers, and Pipeline Mileposts

Test 2 – Tie-in pieces, hydrostatic test piping and existing 36" L-303. Existing pipeline material listed; ie. pipe, elbows, sleeves, are from the "Material of Record" (refer to Dwg 41592685, sheet 5 of 5)

Hydrotest L-303 from MP Redacted Livermore, CA (Test section 121)

Location Class	Design Factor (F)	MAOP to be Established for this Piping by this Test	Future Design Pressure
3	.5	731 PSIG	877 PSIG

STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)			Static Head Calculation		
	Max. Elevation	693 Ft.	For Water	0.433 X Elev. Diff. =	71.4 PSIG
	Min. Elevation	528 Ft.	Other (Specify)	X Elev. Diff. =	PSIG
	Elev. Diff.	165 Ft.			

Pipe Specification				Pipe Spec. and Footage Verified In Field	% of SMYS			Pressure to Give 90% SMYS
Size O.D.	Size 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.	
36.00	.500	API 5L, X-65, DSAW (Item #100)	~~48'~~	54.7' A	40.49	60.76	66.46	1625
36.00	~~.500~~	Elbow, ~~X-65~~ .576, X-60 (Item #118)	4 ea.	A	~~40.49~~	~~60.76~~	~~66.46~~	~~1625~~
36.00	.422	API 5L, X-52, DSAW (Item #1)	~~4911'~~	4918.1' A	59.96	89.98	98.43	1097
36.00	.500	Elbow, Y-52 (Item #2)	3 ea.	MOR	50.61	75.95	83.08	1300
4.50	.148	API 5L, GR B, SMLS (Item #4)	10'	MOR	31.75	47.65	52.12	2072

		Test Fluid To Be Used	MINIMUM TEST DURATION	
Minimum Test Pressure @ Max. Elevation	1097 PSIG	WATER	- UNDER 30% SMYS (1 HR. MINIMUM)	8 HOURS
Maximum Test Pressure @ Min. Elevation	1200 PSIG		- 30% SMYS & OVER (8 HRS. MINIMUM)	
			- PREINSTALLATION TEST (SEE ATTACHMENT 'A', GAS STD. A-34)	

Redacted Date: 10-31-11 For Information or Changes, Call: Mark Cabral (925) 588-3640 Approved By: Mark Cabral Date: 10-31-11

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	11:05 AM 11-16-11	Elevation at Test Point	528' FT	Min. Required Test Press. At Test Point	(1)	1,168.50 PSIG	Max. Allowable Test Press at Test Point	(4)	1,200 PSIG
Time and Date Test Ended	7:20 PM 11-16-11	Max. Elevation in Test Section	693' FT	Min. Indicated Test Pressure	(2)	1,185.00 PSIG	Max. Indicated Test Pressure	(5)	1,187 PSIG
Actual Duration of Test	8-Hours 15-Minutes	Min. Elevation in Test Section	528' FT	Min. Test Pressure at Max. Elevation	(3)	1,113.50 PSIG	Max. Test Pressure at Min. Elevation	(6)	1,187 PSIG

Test Fluid Used: water

Redacted Boida Surveying

Make, Range, and Serial No. of Pressure Recording Gauge	Date Last Calibrated	Make, Range, and Serial No. of Dead Weight Tester (See Note 7)	Date Last Calibrated
Tech-ops 0-2000 02098	11-7-11	AMETEK 2.5-3000 HL 4321	10-10-11

Test Redacted Date: 11-16-11 Approv Redacted Date: 11-17-11

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:

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