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 3

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-101	1	Peninsula	41474062-T2/3	5/27/11

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

STPR 41474062T2 - Hydrostatically test 36" tie-in piping, hydrostatic test piping and existing 34" and 36" L-101. Existing material listed; i.e. pipe, elbows, sleeves, are from the "Material of Record". (refer to DWG 414740062-T2/3,Sheet 7).

T-2 - Hydrotest L-101 from Redacted Test 2 (Location B to C on Dwg. 414740062-T2/T3))

Location Class	Design Factor (F)	MAOP to be Established for this Piping by this Test	Future Design Pressure
3	.5	400 PSIG	400 PSIG

STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)			Static Head Calculation		
	Max. Elevation	17 Ft.	For Water	0.433 X Elev. Diff. =	8 PSIG
	Min. Elevation	0 Ft.	Other (Specify)	X Elev. Diff. =	PSIG
	Elev. Diff.	17 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 (FRW, DSAW, Seamless, Etc.)			At MAOP	At Min. Test Press.	At Max. Test Press.	
36.00	0.500	API 5L, X-65, DSAW	(Item#50)	75' / 135' – 2"	22.15	37.66	43.20	1625
10.75	0.365	API 5L, GrB, SMLS	(Item #53)	8' / Tested with T-3	16.83	28.61	32.82	2139
3.500	0.216	API 5L, GrB, SMLS	(Item #54)	8' / Tested with T-3	9.26	15.74	18.06	3888
2.375	0.154	API 5L, GrB, SMLS	(Item #55)	4' / Tested with T-3	8.81	14.98	17.18	4085
36.00	0.350	API 5L, X-52, DSAW	(Item#1)	11,065' / M.O.R.	39.56	67.25	77.14	910
36.00	0.469	API 5L, X-52, DSAW	(Item#3)	310' / M.O.R.	29.52	50.19	57.57	1219

		Test Fluid To Be Used	MINIMUM TEST DURATION	
Minimum Test Pressure @ Max. Elevation	680 PSIG	WATER	- UNDER 30% SMYS (1 HR. MINIMUM)	8 HOURS
Maximum Test Pressure @ Min. Elevation	780 PSIG		- 30% SMYS & OVER (8 HRS. MINIMUM)	
			- PRE-INSTALLATION TEST (SEE ATTACHMENT 'N', GAS STD. A 34)	(3)

Prepared By:	Date:	For Information or Changes, Call:	Approved:	Date:
Mark A. Cabral	05/27/11	Redacted	Redacted	6/2/11

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	1045 hrs 6-5-11	Elevation at Test Point	8.0 FT	Min. Required Test Press. At Test Point (1)	684 PSIG	Max. Allowable Test Press at Test Point (4)	777 PSIG
Time and Date Test Ended	2000 hrs 6-5/11	Max. Elevation in Test Section	17 FT	Min. Indicated Test Pressure (2)	710 PSIG	Max. Indicated Test Pressure (5)	752 PSIG
Actual Duration of Test	9 hrs. 15 min	Min. Elevation in Test Section	0 FT	Min. Test Pressure at Max. Elevation (3)	706 PSIG	Max. Test Pressure at Min. Elevation (6)	756 PSIG

Test Fluid Used	Pipe Specification and Footage Verified (See Part I)
Water	Above

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
CPL 1703 0-1000 PSI	5-2-11	Ametek s/n 2845 0.3500 PSI	11-29-10

Test Supervised By:	Date:	Approved By:	Date:
Redacted Redacted	6-11-11	Joel Timms (1)	8-4-11

PUT SCHEMATIC PIPI
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)
GS/M&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&IS
REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING

originally signed on 6-8-11 (2) ORIGINAL SIGNED 6-5-11

(3) Original Signed 5/25/11

SB_GT&S_0502529

Gas Pipeline Facilities Strength Test Pressure Report

(For Pipeline Facilities Designed to Operate over 100 PSIG)

California Gas Transmission
(Made in Accordance with Gas Standard A-31 and GO 112D)

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-101	1	Peninsula	41474062-T2/3	5/27/11

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

STPR 41474062T2 - Hydrostatically test 36" tie-in piping, hydrostatic test piping and existing 34" and 36" L-101. Existing material listed; i.e. pipe, elbows, sleeves, are from the "Material of Record". (refer to DWG 414740062-T2/3,Sheet 7).

T-2 - Hydrotest L-101 from [Redacted]. Test 2 (Location B to C on Dwg. 414740062-T2/T3))

Location Class	Design Factor (F)	MAOP to be Established for this Piping by this Test	Future Design Pressure
3	.5	400 PSIG	400 PSIG

STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)				Static Head Calculation			
	Max. Elevation	17	Ft.	For Water	0.433 X Elev. Diff. =	8	PSIG
	Min. Elevation	0	Ft.	Other (Specify)			
	Elev. Diff.	17	Ft.		X Elev. Diff. =		PSIG

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
34.00	0.500	API 5L, X-52, DSAW	(Item #6)	2'	M.O.R.	26.15	44.46	51.00	1377
34.00	0.375	API 5L, X-46, DSAW	(Item#10)	225'	M.O.R.	39.42	67.01	76.87	913
36.00	0.422	API 5L, X-52, DSAW	(Item #4)	520'	M.O.R.	32.81	55.78	63.98	1097
34.00	0.344	API 5L, X-52, DSAW	(Item #7)	324'	M.O.R.	38.01	64.62	74.13	947
34.00	0.437	API 5L, X-52, DSAW	(Item #8)	19'	M.O.R.	29.89	50.81	58.29	1205
36.00	0.375	Elbow, Y-52	(Item #14)	7 Ea.	M.O.R.	36.92	62.77	72.00	975
36.00	UNK	Elbow, Unknown Grade	(Item#15)	3 Ea.	M.O.R.	-	-	-	-
36.00	0.625	Elbow, Y-52	(Item#20)	4 Ea.	M.O.R.	22.15	37.66	43.20	1625
36.00	UNK	Elbow, Unknown Grade	(Item#30)	1 Ea.	M.O.R.	-	-	-	-
		SLEEVE SP							

Minimum Test Pressure @ Max. Elevation	680 PSIG	Test Fluid To Be Used: WATER	MINIMUM TEST DURATION - UNDER 30% SMYS (1 HR. MINIMUM) - 30% SMYS & OVER (8 HRS. MINIMUM) - PRE-INSTALLATION TEST (SEE ATTACHMENT 'A', GAS STD. A-34)	8 HOURS
Maximum Test Pressure @ Min. Elevation	780 PSIG			

Prepared By: Mark A. Cabral — Date: 05/27/11 — For Information or Changes, Call: [Redacted] — Approved: [Redacted] — Date: 9/7/11 (3)

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	1045 hrs 6-5-11	Elevation of Test Point	8 FT	Min. Required Test Press. At Test Point	(1)	684 PSIG	Max. Allowable Test Press at Test Point	(4)	777 PSIG
Time and Date Test Ended	2000 hrs. 6-5-11	Max. Elevation in Test Section	17 FT	Min. Indicated Test Pressure	(2)	710 PSIG	Max. Indicated Test Pressure	(5)	752 PSIG
Actual Duration of Test	9 hrs. 15 min	Min. Elevation in Test Section	0 FT	Min. Test Pressure at Max. Elevation	(3)	706 PSIG	Max. Test Pressure at Min. Elevation	(6)	756 PSIG

Test Fluid Used: Water

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

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
CPI [Redacted]	5-2-11	Ametek s/n 2845 0-3500 PSI	11-29-10

Test [illegible] Date: 8-11-11 — Approved By: [signature] 8-4-11 Date: (2)

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 (FOREMANS COPY OF JOB)
RECORDS SECTION (WC), GM&TS
REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING

(1) originally signed on 6-8-11 (2) Original Signed 6-5-11
(3) original signed 5/25/11

Gas Pipeline Facilities Strength Test Pressure Report

(For Pipeline Facilities Designed to Operate over 100 PSIG)

California Gas Transmission
(Used in Accordance with Gas Standard A-34 and GO 112-D)

Sheet 3 of 3

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-101	1	Peninsula	41474062-T2/3	5/27/11

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

STPR 41474062T2 - Hydrostatically test 36" tie-in piping, hydrostatic test piping and existing 34" and 36" L-101. Existing material listed; i.o. pipe, elbows, sleeves, are from the "Material of Record". (refer to DWG 414740062-T2/3,Sheet 7).

T-2 - Hydrotest L-101 from M Redacted Test 2 (Location B to C on Dwg. 414740062-T2/T3))

Location Class	Design Factor (F)	MAOP to be Established for this Piping by this Test	Future Design Pressure
3	.5	400 PSIG	400 PSIG

STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)			Static Head Calculation		
	Max. Elevation	17 Ft.	For Water	0.433 X Elev. Diff. =	8 PSIG
	Min. Elevation	0 Ft.	Other (Specify)	X Elev. Diff. =	PSIG
	Elev. Diff.	17 Ft.			PSIG

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	0.375	Sleeve,Y-60,GrE (Item#29)	1Ea.	M.O.R.	32.00	54.40	62.40	1125
34.00	0.406	Elbow, Unknown Grado (Item#17)	1Ea.	M.O.R.	-	-	-	-
34.00	0.3605	Elbow, Unknown Grado (Item#19)	2Ea.	M.O.R.	-	-	-	-
34.00	0.500	Elbow, Unknown Grade (Item#18)	1Ea.	M.O.R.	-	-	-	-
34.00	0.375	Elbow, Y-52 (Item#16)	1Ea.	M.O.R.	34.87	59.28	68.00	1032
34.00	0.375	Elbow, Unknown Grade (Item#24)	1Ea.	M.O.R.	/	/	/	/

Minimum Test Pressure @ Max. Elevation	680 PSIG	Test Fluid To Be Used	MINIMUM TEST DURATION	8 HOURS
Maximum Test Pressure @ Min. Elevation	780 PSIG	WATER	- UNDER 30% SMYS (1 HR. MINIMUM) - 30% SMYS & OVER (8 HRS. MINIMUM) - PRE-INSTALLATION TEST (SEE ATTACHMENT 'A', GAS STD. A-34) (3)	

Prepared By: Mark A. Cabral Date: 05/27/11 For Information or Changes, Call: Redacted Approved: Redacted Date: 9/7/11

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	1045 hrs. 6-5-11	Elevation at Test Point	8 FT	Min. Required Test Press. At Test Point (1)	684 PSIG	Max. Allowable Test Press at Test Point (4)	777 PSIG
Time and Date Test Ended	2000 hrs 6-5-11	Max. Elevation in Test Section	17 FT	Min. Indicated Test Pressure (2)	710 PSIG	Max. Indicated Test Pressure (5)	752 PSIG
Actual Duration of Test	9 hrs. 15min.	Min. Elevation in Test Section	0 FT	Min. Test Pressure at Max. Elevation (3)	706 PSIG	Max. Test Pressure at Min. Elevation (6)	756 PSIG

Test Fluid Used: Water

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

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
CPL 0-1000 PSI	5-2-11	Ametek s/n 2845 0-3500 PSI	11-29-10

Test Redacted (2) Date: 6-11-11 Approved By: Date:

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

FOR FILE (AT SPONSORING ORGANIZATION) (3) Original Signed
GSM&S OR RESPONSIBLE DISTRICT SUPERINTENDENT on 5/20/11
PROJECT MANAGER/PROJECT ENGINEER
TECHNICAL & CONSTRUCTION SERVICES - ASSIGNED JOBS ONLY
CAPITAL ACCOUNTING (FOREMAN'S COPY OF JOB)
RECORDS SECTION (WC), CM&STS
REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING

Original signed 6-8-11 (2) ORIGINAL SIGNED 6-5-11

SB_GT&S_0502531

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
(Built In Accordance with Gas Standard A-34 or 100.112-7)

Sheet 1 of 3

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-101	1	Peninsula	41474062-T2/3	5/27/11

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

STPR 41474062T2 - Hydrostatically test 36" tie-in piping, hydrostatic test piping and existing 34" and 36" L-101. Existing material listed; i.e. pipe, elbows, sleeves, are from the "Material of Record". (refer to DWG 414740062-T2/3,Sheet 7).

T-2 - Hydrotest L-101 from Redacted Test 2 (Location B to C on Dwg. 414740062-T2/T3))

Location Class	Design Factor (F)	MAOP to be Established for this Piping by this Test	Future Design Pressure
3	.5	400 PSIG	400 PSIG

STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)			Static Head Calculation		
	Max. Elevation	17 Ft.	For Water	0.433 X Elev. Diff. =	8.0 PSIG
	Min. Elevation	0 Ft.	Other (Specify)	X Elev. Diff. =	PSIG
	Elev. Diff.	17 Ft.			

Pipe Specification			Footage to Be Tested	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.)			At MAOP	At Min. Test Press.	At Max. Test Press.	
36.00	0.500	API 5L, X-65, DSAW (Item#50)	~~76'~~	135'-2" AR	22.15	37.66	43.20	1625
~~10.75~~	~~0.365~~	~~API 5L, GrB, SMLS (Item#53)~~	~~8'~~	not in Test AR	16.83	28.61	32.82	2139
~~3.500~~	~~0.216~~	~~API 5L, GrB, SMLS (Item #54)~~	~~8'~~	not in Test AR	9.26	15.74	18.06	3888
~~2.375~~	~~0.154~~	~~API 5L, GrB, SMLS (Item#55)~~	~~4'~~	not in test AR	8.81	14.98	17.18	4085
36.00	0.350	API 5L, X-52, DSAW (Item#1)	11,065'	AR 11042.9	39.56	67.25	77.14	910
36.00	0.469	API 5L, X-52, DSAW (Item#3)	310'	AR MOR	29.52	50.19	57.57	1219

Minimum Test Pressure @ Max. Elevation	680 PSIG	Test Fluid To Be Used	MINIMUM TEST DURATION - UNDER 30% SMYS (1 HR. MINIMUM)	8 HOURS
Maximum Test Pressure @ Min. Elevation	780 PSIG	WATER	- 30% SMYS & OVER (8 HRS. MINIMUM) - PREINSTALLATION TEST (SEE ATTACHMENT 'A', GAS STD. A-34)	

Prepared By: Mark A. Cabral Date: 05/27/11 For Information or Changes, Call: Redacted Redacted Date: 5/29/11

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	1200 hrs. 6-5-11	Elevation of Test Point	8.0' FT	Min. Required Test Press. At Test Point (1)	684 PSIG	Max. Allowable Test Press at Test Point (4)	737 736 PSIG
Time and Date Test Ended	2000 hrs. 6-5-11	Max. Elevation in Test Section	17 FT	Min. Indicated Test Pressure (2)	710 PSIG	Max. Indicated Test Pressure (5)	752 PSIG
Actual Duration of Test	9 hrs. 15 Min	Min. Elevation in Test Section	0 FT	Min. Test Pressure at Max. Elevation 706 (3)	702 PSIG	Max. Test Pressure at Min. Elevation 755 (6)	712 PSIG

Test Fluid Used: WATER

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

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
CPL 1703 0-1000 PSI	5-2-11	AMETEK S/N 2845 0-3500 PSI	11-29-10

Test Supervised By: Redacted Date: 6/5/11 Approved By: Jack Mayne Date: 6-8-11

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 (WCL, GM&TS
REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING

SB_GT&S_0502532

Gas Pipeline Facilities Strength Test Pressure Report

(For Pipeline Facilities Designed to Operate over 100 PSIG)

California Gas Transmission
(Use in Accordance with Gas Standard TA-34 and GD 112.0)

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-101	1	Peninsula	41474062-T2/3	5/27/11

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

STPR 41474062T2 - Hydrostatically test 36" tie-in piping, hydrostatic test piping and existing 34" and 36" L-101. Existing material listed; i.e. pipe, elbows, sleeves, are from the "Material of Record". (refer to DWG 414740062-T2/3,Sheet 7).

T-2 - Hydrotest L-101 from MP [Redacted] n. Test 2 (Location B to C on Dwg. 414740062-T2/T3))

Location Class	Design Factor (F)	MAOP to be Established for this Piping by this Test	Future Design Pressure
3	.5	400 PSIG	400 PSIG

STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)	Max. Elevation	17 Ft.	Static Head Calculation For Water	0.433 X Elev. Diff. =	8.0 PSIG
	Min. Elevation	0 Ft.	Other (Specify)	X Elev. Diff. =	PSIG
	Elev. Diff.	17 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
34.00	0.500	API 5L, X-52, DSAW	(Item #6)	2'	MOR	26.15	44.46	51.00	1377
34.00	0.375	API 5L, X-46, DSAW	(Item#10)	225'	MOR	39.42	67.01	76.87	913
36.00	0.422	API 5L, X-52, DSAW	(Item #4)	520'	MOR	32.81	55.78	63.98	1097
34.00	0.344	API 5L, X-52, DSAW	(Item #7)	324'	MOR	38.01	64.62	74.13	947
34.00	0.437	API 5L, X-52, DSAW	(Item #8)	19'	MOR	29.89	50.81	58.29	1205
36.00	0.375	Elbow, Y-52	(Item #14)	7 Ea.	MOR	36.92	62.77	72.00	975
36.00	UNK	Elbow, Unknown Grade	(Item#15)	3 Ea.	MOR	-	-	-	-
36.00	0.625	Elbow, Y-52	(Item#20)	4 Ea.	MOR	22.15	37.66	43.20	1625
36.00	UNK	Elbow, Unknown Grade	(Item#30)	1 Ea.	MOR	-	-	-	-

		Test Fluid To Be Used	MINIMUM TEST DURATION	
Minimum Test Pressure @ Max. Elevation	680 PSIG	WATER	- UNDER 30% SMYS (1 HR. MINIMUM)	8 HOURS
Maximum Test Pressure @ Min. Elevation	780 PSIG		- 30% SMYS & OVER (8 HRS. MINIMUM)	
			- PREINSTALLATION TEST (SEE ATTACHMENT 'A', GAS STD. A-34)	

Prepared By: Mark A. Cabral Date: 05/27/11 | For Information or Changes, Call: [Redacted] | Approved By: [Redacted] Date: 5/28/11

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	12:00 hrs 6-5-11	Elevation at Test Point	3 FT	Min. Required Test Press. At Test Point (1)	684 PSIG	Max. Allowable Test Press. at Test Point (4)	771	736 PSIG
Time and Date Test Ended	2000 hrs. 6-5-11	Max. Elevation in Test Section	17 FT	Min. Indicated Test Pressure (2)	710 PSIG	Max. Indicated Test Pressure (5)		752 PSIG
Actual Duration of Test	9 hrs. 15 MIN	Min. Elevation in Test Section	0 FT	Min. Test Pressure at Max. Elevation (3)	706 702 PSIG	Max. Test Pressure at Min. Elevation (6)	755	712 PSIG

Test Fluid Used	Pipe Specification and Footage Verified (See Part I)
WATER	ABOVE

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
CPL 1703 0-1000 PSI	5-2-11	AMETEK S/N 2845 0-3500 PSI	11-29-10

Test Supervised By: Date: | Approved By: Joel Mannis 6-8-11 Date:

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 80% of SMYS or greater. However, if a dead weight tester is used on any test, enter the information in the space provided above.

DISTRIBUTION

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CAPITAL ACCOUNTING (FOREMAN'S COPY OF JOB)
RECORDS SECTION (WC), GM&ZTS
REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING

Gas Pipeline Facilities Strength Test Pressure Report

(For Pipeline Facilities Designed to Operate over 100 PSIG)

California Gas Transmission
(Use in Accordance with Gas Standard A-34 and GO 112-E)

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-101	1	Peninsula	41474062-T2/3	5/27/11

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

STPR 41474062T2 - Hydrostatically test 36" tie-in piping, hydrostatic test piping and existing 34" and 36" L-101. Existing material listed; i.e. pipe, elbows, sleeves, are from the "Material of Record", refer to DWG 414740062-T2/3,Sheet 7).

T-2 - Hydrotest L-101 from Redacted Test 2 (Location B to C on Dwg. 414740062-T2/T3))

Location Class	Design Factor (F)	MAOP to be Established for this Piping by this Test	Future Design Pressure
3	.5	400 PSIG	400 PSIG

STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)

Max. Elevation 17 Ft. | Min. Elevation 0 Ft. | Elev. Diff. 17 Ft.

Static Head Calculation: For Water 0.433 X Elev. Diff. = 8.0 PSIG; Other (Specify) ____ X Elev. Diff. = ____ PSIG

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	% of SMYS At Min. Test Press.	% of SMYS At Max. Test Press.	Pressure to Give 90% SMYS
36.00	0.375	Sleeve,Y-60,GrE (Item#29)	1Ea.	MOR	32.00	54.40	62.40	1125
34.00	0.406	Elbow, Unknown Grade (Item#17)	1Ea.	MOR	-	-	-	-
34.00	0.650	Elbow, Unknown Grade (Item#19)	2Ea.	MOR	-	-	-	-
34.00	0.500	Elbow, Unknown Grade (Item#18)	1Ea.	MOR	-	-	-	-
34.00	0.375	Elbow, Y-52 (Item#16)	1Ea.	MOR	34.87	59.28	68.00	1032
34.00	0.375	Elbow, Unknown Grade (Item#24)	1Ea.	MOR	-	-	-	-

Minimum Test Pressure @ Max. Elevation	680 PSIG	Test Fluid To Be Used: WATER	MINIMUM TEST DURATION: - UNDER 30% SMYS (4 HR. MINIMUM) - 30% SMYS & OVER (8 HRS. MINIMUM) - PREINSTALLATION TEST (SEE ATTACHMENT 'N', GAS STD. A-34) 8 HOURS
Maximum Test Pressure @ Min. Elevation	780 PSIG		

Prepared By: Mark A. Cabral Date: 05/27/11 For Information or Changes, Call: Redacted Approved: Redacted Date: 5/28/11

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	1200 hrs. 6-5-11	Elevation at Test Point	8 FT	Min. Required Test Press. At Test Point (1)	684 PSIG	Max. Allowable Test Press at Test Point (4)	777	736 PSIG
Time and Date Test Ended	2000 hrs. 6-5-11	Max. Elevation in Test Section	17 FT	Min. Indicated Test Pressure (2)	710 PSIG	Max. Indicated Test Pressure (5)		752 PSIG
Actual Duration of Test	9 hrs. 15 MIN.	Min. Elevation in Test Section	0 FT	Min. Test Pressure at Max. Elevation (3)	706 702 PSIG	Max. Test Pressure at Min. Elevation (6)	765	712 PSIG

Test Fluid Used: WATER

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

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
CPL 0-1000 PSI	5-2-11	AMETEK S/N 2845 0-3500 PSI	11-29-10

Test Supervised By: Date: Approved By: Date: 6-8-11

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 minimum 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.

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