



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

Footer Main Number, Line Number, or Station Name <b>L-101</b>	Area <b>1</b>	Division/District <b>Peninsula</b>	Job Number <b>41474062-T2/3</b>	Date Job Authorized <b>5/27/11</b>
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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 41474062-T2/3, Sheet 7).**

T-2 - Hydrotest L-101 from [Redacted] Test 2 (Location B to C on Dwg. 41474062-T2/T3)

Location Class <b>3</b>	Design Factor (F) <b>.5</b>	MAOP to be Established for this Piping by this Test <b>400 PSIG</b>	Future Design Pressure <b>400 PSIG</b>
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STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)	Max. Elevation <b>17</b> Ft.	Static Head Calculation For Water: $0.433 \times \text{Elev. Diff.} = \underline{\quad 8 \quad}$ PSIG Other (Specify): $\quad \quad \quad \times \text{Elev. Diff.} = \quad \quad \quad$ PSIG
	Min. Elevation <b>0</b> Ft.	
	Elev. D.T. <b>17</b> Ft.	

Size		Pipe Specification		Foolage to Be Tested	Pipe Spec. and Foolage Verified in Field	% of SMYS			Pressure to Give 93% SMYS
O.D.	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

Minimum Test Pressure @ Max. Elevation <b>680 PSIG</b>	Test Fluid To Be Used <b>WATER</b>	MINIMUM TEST DURATION - UNDER 20% SMYS (1 HR. MINIMUM) - 30% SMYS & OVER (8 HRS. MINIMUM) - PREINSTALLATION TEST (SEE ATTACHMENT 'W', GAS STD. A-34)	<b>8 HOURS</b>
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Maximum Test Pressure @ Min. Elevation <b>780 PSIG</b>	Prepared By: <b>Mark A. Cabral</b>	Date: <b>05/27/11</b>	For Information or Concern - Call: <b>Redacted</b>	Approved: <b>Redacted</b>	Date: <b>5/27/11</b>
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**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 <b>1045 hrs 8-5-11</b>	Elevation at Test Point <b>8.0 FT</b>	Min. Required Test Press. At Test Point (1) <b>684 PSIG</b>	Max. Allowable Test Press. at Test Point (4) <b>777 PSIG</b>
Time and Date Test Ended <b>2000 hrs 6-5/11</b>	Max. Elevation in Test Section <b>17 FT</b>	Min. Indicated Test Pressure (2) <b>710 PSIG</b>	Max. Indicated Test Pressure (5) <b>752 PSIG</b>
Actual Duration of Test <b>9 hrs. 15 min</b>	Min. Elevation in Test Section <b>0 FT</b>	Min. Test Pressure at Max. Elevation (3) <b>706 PSIG</b>	Max. Test Pressure at Min. Elevation (6) <b>756 PSIG</b>

Test Fluid Used: **Water**  
 Pipe Specification and Foolage Verified (See Part I): **Above**

Make, Range, and Serial No. of Pressure Recording Gauge <b>CPL 1702 0-1000 PSI</b>	Date Last Calibrated <b>5-2-11</b>	Make, Range, and Serial No. of Dead Weight Tester (See Note 7) <b>Ametek s/n 2845 0.3500 PSI</b>	Date Last Calibrated <b>11-29-10</b>
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Test Supervised By: <b>Redacted</b>	Date: <b>8-11-11</b>	Approved By: <i>[Signature]</i>	Date: <b>8-4-11</b>
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PUT SCHEDULED PIPING  
 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, FACTORY TESTED UNITS AND SHORT SECTIONS OF PIPE, ALSO SHOW A DETAILED SKETCH OF EACH ASSEMBLY TESTED.

<b>NOTES:</b> (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.	<b>DISTRIBUTION</b> JOB FILE (AT SPONSORING ORGANIZATION)  GMS&TS RESPONSIBLE DISTRICT SUPERINTENDENT  PROJECT MANAGER/PROJECT ENGINEER  TECHNICAL & CONSTRUCTION SERVICES - ASSIGNED JOBS ONLY  CAPITAL ACCOUNTING (FOR EMAN'S COPY OF JOBS)  RECORDS SECTION (WC), GMS&TS  REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING
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① originally signed on 6-8-11 ② ORIGINAL signed 6-5-11  
 ③ original signed 5/28/11



<b>PART I - DESIGN DATA (TO BE PREPARED BY PROJECT ENGINEER)</b>										
Header 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 - Includes Reference Drawing Numbers, and Pipeline Map/pos 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-T2/3)										
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 FL.		Static Head Calculation				
		Min. Elevation		0 FL.		For Water: 0.433 X Elev. Diff. = 8 PSIG				
		Elev. Diff.		17 FL.		Other (Specify): X Elev. Diff. = PSIG				
Pipe Specification		API or ASME Grade		Footage to be Tested		Pipe Spec. and Footage Verified In Field		% of SMYS		Pressure to Give 93% SMYS
Size: O.D. W.T.		Long Seam (ERW, DSAW, Seamless, Etc.)						At MAOP At Min. Test Press. At Max. Test Press.		
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.		-		-
		SLIGHT 3P								
Minimum Test Pressure @ Max. Elevation				680 PSIG		Test Fluid to be Used WATER		MINIMUM TEST DURATION		8 HOURS
Maximum Test Pressure @ Min. Elevation				780 PSIG				- UNDER 30% SMYS (1 HR. MINIMUM)		
								- 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: [Redacted]		Date: 5/27/11		(3)

<b>PART II - TEST DATA (TO BE PREPARED BY PERSON SUPERVISING TEST AT TIME OF TEST)</b>							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. 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: [Redacted]			Date: 8-11-11		Approved By: [Signature]			Date: 8-9-11							

PIII. GENERAL FIELD SECTION 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.

<b>NOTES:</b>					<b>DISTRIBUTION</b>				
(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.					JOB FILE (AT SPONSORING ORGANIZATION)				
(2) Use lowest pressure on test gauge at any time during test.					GSM&S RESPONSIBLE DISTRICT SUPERINTENDENT				
(3) Subtract static head due to elevation difference (between test point and maximum elevation) from minimum indicated test pressure.					PROJECT MANAGER/PROJECT ENGINEER				
(4) Subtract static head due to elevation difference (between test point and minimum elevation) from "maximum test pressure at minimum elevation" from PART I.					TECHNICAL & CONSTRUCTION SERVICES - ASSIGNED JOBS ONLY				
(5) Highest pressure on test gauge at any time during test.					CAPITAL ACCOUNTING (FOREMAN'S COPY OF JOB)				
(6) Add static head due to elevation difference (between test point and minimum elevation) to maximum indicated test pressure.					RECORDS SECTION (WC), GSM&S				
(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.					REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING				

① originally signed on 6-8-11  
② original signed 6-5-11  
③ original signed 5/28/11



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

Facility Name, Line Number, or Station Name <b>L-101</b>	Area <b>1</b>	Division/District <b>Peninsula</b>	Job Number <b>41474062-T2/3</b>	Date Job Authorized <b>5/27/11</b>
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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 <b>3</b>	Design Factor (F) <b>.5</b>	MAOP to be Established for this Piping by this Test <b>400 PSIG</b>	Future Design Pressure <b>400 PSIG</b>
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STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)	Max. Elevation <b>17 FT</b>	Min. Elevation <b>0 FT</b>	Elev. Diff. <b>17 FT</b>	Static Head Calculation	For Water <b>0.433 X Elev. Diff. = <u>8</u> PSIG</b>	For Gas (Specify) <b>X Elev. Diff. = <u>8</u> PSIG</b>
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Size		API or ASTM Grade		Footage to Be Tested	Pipe Spec. and Footage Verified in Field	% of SMYS			Pressure to Give 90% SMYS
OD.	W.T.	Long Seam (ERW, DSAW, Seamless, Etc.)				At MAOP	At Min. Test Press.	At Max. Test Press.	
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 Grade	(Item#17)	1Ea.	M.O.R.	-	-	-	-
34.00	0.406	Elbow, Unknown Grade	(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 <b>680 PSIG</b>	Test Fluid To Be Used <b>WATER</b>	MINIMUM TEST DURATION - UNDER 30% SMYS (1 HR. MINIMUM) - 30% SMYS & OVER (8 HRS. MINIMUM) - PREINSTALATION TEST (SEE ATTACHMENT 'A', GAS STD. A 34) <b>(3)</b>	<b>8 HOURS</b>
Maximum Test Pressure @ Min. Elevation <b>780 PSIG</b>			

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)**

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

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

Make, Range, and Serial No. of Pressure Recording Gauge <b>CPI 0-1000 PSI</b>	Date Last Calibrated <b>5-2-11</b>	Make, Range, and Serial No. of Dead Weight Tester (See Note 7) <b>Ametek s/n 2845 0-3500 PSI</b>	Date Last Calibrated <b>11-29-10</b>
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Test: **Redacted** Date: **8-11-11** Approved By: **[Signature]** Date: **8-4-11**

NOTE: 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 AT EACH POINT). FOR STATION PIPING, INDICATED UNITS AND SHORT SECTIONS OF PIPE, ALSO SHOW A DETAILED SKETCH OF EACH ASSEMBLY TESTED.

- NOTES:**
- 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.

**DISTRIBUTION**  
 FOR FILE (AT SPONSORING ORGANIZATION) **(3) Original signed**  
 GAS & S RESPONSIBLE DISTRICT SUPERINTENDENT on **5/28/11**  
 PROJECT MANAGER/PROJECT ENGINEER  
 TECHNICAL & CONSTRUCTION SERVICES - ASSIGNED JOBS ONLY  
 CAPITAL ACCOUNTING (FORWARD'S COPY OF JOB)  
 RECORDS SECTION (WC), CMASBTS  
 REPORT FAILURE UNDER TEST TO GAS ENGINEERING & PLANNING

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



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  
 (Per ASCE Standard with Gas Standard A 31.4-100-112-7)

Sheet 1 of 3

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

Feeder/Main Number, Line Number, or Station Name <b>L-101</b>	Area <b>1</b>	Division/District <b>Peninsula</b>	Job Number <b>41474062-T2/3</b>	Date Job Authorized <b>5/27/11</b>
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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 41474062-T2/3, Sheet 7).**

**T-2 - Hydrotest L-101 from [Redacted] Test 2 (Location B to C on Dwg. 41474062-T2/3))**

Location Class <b>3</b>	Design Factor (F) <b>.5</b>	MAOP to be Established for this Piping by this Test <b>400 PSIG</b>	Future Design Pressure <b>400 PSIG</b>
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STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)	Max. Elevation <b>17 FT.</b>	Static Head Calculation	For Water <b>0.433 X Elev. Diff. = <b>8.0'</b> PSIG</b>
	Min. Elevation <b>0 FT.</b>	Other (Specify)	X Elev. Diff. = <b>PSIG</b>
	Elev. Diff. <b>17 FT.</b>		

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.	
36.00	0.500	API 5L, X-65, DSAW	(Item#50)	76'	135'-2" <del>XX</del>	22.15	37.66	43.20	1625
40.75	0.365	API 5L, GrB, SMLS	(Item#53)	8'	not in test <del>XX</del>	16.83	28.61	32.82	2139
3.500	0.246	API 5L, GrB, SMLS	(Item#54)	8'	not in test <del>XX</del>	9.26	15.74	18.06	3888
2.375	0.154	API 5L, GrB, SMLS	(Item#55)	4'	not in test <del>XX</del>	8.81	14.98	17.18	4085
36.00	0.350	API 5L, X-52, DSAW	(Item#1)	11,065'	XX 11042.9	39.56	67.25	77.14	910
36.00	0.469	API 5L, X-52, DSAW	(Item#3)	310'	XX MOR	29.52	50.19	57.57	1219

Minimum Test Pressure @ Max. Elevation <b>680 PSIG</b>	Test Fluid To Be Used <b>WATER</b>	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)	<b>8 HOURS</b>
Maximum Test Pressure @ Min. Elevation <b>780 PSIG</b>			

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

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

Make, Range, and Serial No. of Pressure Recording Gauge <b>CPL 1703 0-1000 PSI</b>	Date Last Calibrated <b>5-2-11</b>	Make, Range, and Serial No. of Dead Weight Tester (See Note 7) <b>AMETEK 5/N 2845 0-3500 PSI</b>	Date Last Calibrated <b>11-29-10</b>
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Test Supervised by: **[Redacted]** Date: **6/5/11** Approved By: **[Signature]** Date: **6-8-11**

PUT SCHEMATIC, FIELD SKETCH OR LOCATION OF THE 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)  
 GMSATS RESPONSIBLE DISTRICT SUPERINTENDENT  
 PROJECT MANAGER/PROJECT ENGINEER  
 TECHNICAL & CONSTRUCTION SERVICES - ASSIGNED JOBS ONLY  
 CAPITAL ACCOUNTING (FOREMAN'S COPY OF JOB)  
 RECORDS SECTION (WU), GMSATS  
 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 Standards 1A, 31 and GD 112.0)

PART I - DESIGN DATA (TO BE PREPARED BY PROJECT ENGINEER)										
Feeder Main Number, Line Number, or Station Name <b>L-101</b>		Area <b>1</b>	Division/District <b>Peninsula</b>		Job Number <b>41474062-T2/3</b>	Date Job Authorized <b>5/27/11</b>				
Description of Job -- Includes Reference Drawing Numbers, and Pipeline Mileposts <b>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).</b>										
T-2 - Hydrotest L-101 from MP <b>Redacted</b> to h. Test 2 (Location B to C on Dwg. 414740062-T2/T3)										
Location Class <b>3</b>	Design Factor (F) <b>.5</b>	MOP to be Established for this Piping by this Test <b>400 PSIG</b>			Future Design Pressure <b>400 PSIG</b>					
STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)		Max. Elevation <b>17</b> Ft.	Stable Head Calculation		For Water $0.433 \times \text{Elev. Diff.} =$ <b>8.0</b> PSIG					
		Min. Elevation <b>0</b> Ft.			Other (Specify) $\times \text{Elev. Diff.} =$ PSIG					
		Elev. Diff. <b>17</b> Ft.								
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.		
34.00	0.500	API 5L, X-52, DSAW (Item #6)		2'	<del>XX</del> MOR	26.15	44.46	51.00	1377	
34.00	0.375	API 5L, X-40, DSAW (Item #10)		225'	<del>XX</del> MOR	39.42	67.01	76.87	913	
36.00	0.422	API 5L, X-52, DSAW (Item #4)		520'	<del>XX</del> MOR	32.81	55.76	63.98	1097	
34.00	0.344	API 5L, X-52, DSAW (Item #7)		324'	<del>XX</del> MOR	38.01	64.62	74.13	947	
34.00	0.437	API 5L, X-52, DSAW (Item #8)		19'	<del>XX</del> MOR	29.89	50.81	58.29	1205	
36.00	0.375	Elbow, Y-52 (Item #14)		7 Ea.	<del>XX</del> MOR	36.92	62.77	72.00	975	
36.00	UNK	Elbow, Unknown Grade (Item #15)		3 Ea.	<del>XX</del> MOR	-	-	-	-	
36.00	0.625	Elbow, Y-52 (Item #20)		4 Ea.	<del>XX</del> MOR	22.15	37.66	43.20	1625	
36.00	UNK	Elbow, Unknown Grade (Item #30)		1 Ea.	<del>XX</del> MOR	-	-	-	-	
Minimum Test Pressure @ Max. Elevation				<b>680 PSIG</b>		Test Fluid To Be Used		MINIMUM TEST DURATION		<b>8 HOURS</b>
Maximum Test Pressure @ Min. Elevation				<b>780 PSIG</b>		WATER		- UNDER 90% SMYS (1 HR. MINIMUM)		
								- 90% SMYS & OVER (8 HRS. MINIMUM)		
								- PRE-INSTALLATION TEST (SEE ATTACHMENT "A" GAS STD. A-34)		
Prepared By: <b>Mark A. Cabral</b>		Date: <b>05/27/11</b>		For Information or Changes, Call: <b>Redacted</b>		Approved By: <b>Redacted</b>		Date: <b>5/27/11</b>		
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	<b>12:00 hrs 6-5-11</b>	Elevation at Test Point	<b>9</b> FT	Min. Required Test Press. At Test Point (1)	<b>684</b> PSIG	Max. Allowable Test Press. at Test Point (4)	<b>711</b> PSIG	<b>736</b> PSIG		
Time and Date Test Ended	<b>2:00 hrs 6-5-11</b>	Max. Elevation in Test Section	<b>17</b> FT	Min. Indicated Test Pressure (2)	<b>710</b> PSIG	Max. Indicated Test Pressure (5)	<b>752</b> PSIG			
Actual Duration of Test	<b>9 hrs. 15 min</b>	Min. Elevation in Test Section	<b>0</b> FT	Min. Test Pressure at Max. Elevation (3)	<b>706</b> PSIG	Max. Test Pressure at Min. Elevation (6)	<b>752</b> PSIG	<b>712</b> PSIG		
Test Fluid Used <b>WATER</b>				Pipe Specification and Footage Verified (See Part I) <b>ABOVE</b>						
Make, Range, and Serial No. of Pressure Recording Gauge <b>CPL 1703 0-1000 PSI</b>		Date Last Calibrated <b>5-2-11</b>		Make, Range, and Serial No. of Dead Weight Tester (See Note 7) <b>AMETEK 3/4 2845 0-3500 PSI</b>			Date Last Calibrated <b>11-29-10</b>			
Test Supervised By: <b>Redacted</b>				Approved By: <b>Jul Marin 6-8-11</b>						
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 ANFAS. 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:					DISTRIBUTION					
(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.					JOB FILE (AT SPONSORING ORGANIZATION)					
(2) Use lowest pressure on test gauge at any time during test.					GSM&TS RESPONSIBLE DISTRICT SUPERINTENDENT					
(3) Subtract static head due to elevation difference (between test point and maximum elevation) from minimum indicated test pressure.					PROJECT MANAGER/PROJECT ENGINEER					
(4) Subtract static head due to elevation difference (between test point and minimum elevation) from "maximum test pressure at minimum elevation" from PART I.					TECHNICAL & CONSTRUCTION SERVICES - ASSIGN TO JOBS ONLY					
(5) Highest pressure on test gauge at any time during test.					CAPITAL ACCOUNTING (FOREMAN'S COPY OF JOB)					
(6) Add static head due to elevation difference (between test point and minimum elevation) to maximum indicated test pressure.					RECORDS SECTION (W/C) GSM&TS					
(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.					REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING					

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

Feeder Main Number, Line Number, or Station Name: Area 1  
 Location: Peninsula  
 Job Number: 41474062-12/3  
 Date Job Authorized: 5/27/11

Description of Job - Including Reference Drawing Numbers, and Feeder Hydrostatics, sleeves, are from the "Material of Record", refer to DWG 41474062-12/3, Sheet 7).

STP 41474062-12 - Hydrostatic 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 41474062-12/3, Sheet 7).

T-2 - Hydrotest L-101 from [Redacted]  
 Test 2 (Location B to C on Dwg. 41474062-12/3))

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

Static Head Due to Elevation Difference (WHERE APPLICABLE)	Max. Elevation		Min. Elevation	
	Feet	Feet	Feet	Feet
	17	0	17	0
Static Head Difference	17		17	

Design Factor (F) = 5  
 MAOP to be Established for this Pipe by the Test = 400 PSIG  
 Future Design Pressure = 400 PSIG

Type Specification	API or ASTM Grade		Long Span (L1W, D5AW, Beamless, Etc.)		Feetage to be Tested	Feetage Verified in Field	MAOP	Alt. Test Press.	Alt. Test Press.	Alt. Test Press.	Gaseous PSIG
	W.T.	W.T.	W.T.	W.T.							
36.00	0.375	Steel, Y-60, GR	(Item#29)	1EA.	32.00	54.40	62.40	1125	-	-	-
34.00	0.408	Elbow, Unknown Grade	(Item#17)	1EA.	32.00	54.40	62.40	1125	-	-	-
34.00	0.650	Elbow, Unknown Grade	(Item#19)	2EA.	32.00	54.40	62.40	1125	-	-	-
34.00	0.500	Elbow, Unknown Grade	(Item#18)	1EA.	32.00	54.40	62.40	1125	-	-	-
34.00	0.375	Elbow, Y-52	(Item#16)	1EA.	32.00	54.40	62.40	1125	-	-	-
34.00	0.375	Elbow, Unknown Grade	(Item#24)	1EA.	32.00	54.40	62.40	1125	-	-	-

MINIMUM TEST DURATION  
 • UNDER 30% SAYS (1 HR. MINIMUM)  
 • 50% SAYS & OVER (8 HRS. MINIMUM)  
 8 HOURS

PREPARATION TEST (SEE ATTACHMENT, W. GAS STD. A-24)  
 - FRESH INSTALLATION TEST (SEE ATTACHMENT, W. GAS STD. A-24)

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

**PART II - TEST DATA (TO BE PREPARED BY PIPELINES 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	Point	Min. Required Test	Max. Allowed Test
1200 hrs.	6-5-11	FT	8	684
2000 hrs.	6-5-11	FT	17	710
4 hrs. 15 min.	6-5-11	FT	0	706
Active Duration of Test				
Test Fluid Used	WATER			

Test Report, and Serial No. of Pressure Recording Gauge: CPT 0-1000 PSI  
 Date Last Calibrated: 5-2-11  
 Make, Range, and Serial No. of Dead Weight Tester (See Note 7): AMETEK 3/1 2845 0-3500 PSI  
 Date Last Calibrated: 11-29-10

NOTES:  
 (1) Add a 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 last 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 highest pressure on test gauge at any time during test.  
 (5) Add static head due to elevation difference (between test point and minimum elevation) to maximum indicated test pressure.  
 (6) 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)  
 GAMTS RESPONSIBLE DISTRICT SUPERINTENDENT  
 PROJECT MANAGER/PROJECT ENGINEER  
 TECHNICAL & CONSTRUCTION SERVICES - ASSIGNED JOBS ONLY  
 CAPITAL ACCOUNTING (FOR MAINS COPY OF JOB)  
 RECORDS SECTION (W.C. CHASAT)  
 REPORT: FALL UNDER TEST TO GAS ENGINEERING & PLANNING