Pacific Gas and Electric Company

Gas Pipeline Facilities Strength Test Pressure Report

(For Pipeline Facilities Designed to Operate over 100 PSIG)

COPY

62-4921 (Rev. 2/04)
California Gas Transmission
(Use 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
Line 132A @ Redacted		De Anza	41474079	

Description of Job -- Include Reference Drawing Numbers, and Pipeline Mileposts
Addition of new 24" valve on L-132A at Rengstorff.

Location Class	Design Factor (F)	MAOP to be Established for this Piping by this Test	Future Design Pressure
3	0.5	400 PSIG	400 PSIG

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

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.	
24.000"	0.375"	API-5L, X60, SAWL (DSAW)	~~30~~	18'-4 7/8" (DSAW)	21.33	32.00	42.67	1,688 MAX.
1.050"	.154"	Sch 80 A106 GR.B		18'-11 3/8" (SMLS)				

		Test Fluid To Be Used	MINIMUM TEST DURATION	
Minimum Test Pressure @ Max. Elevation	600 PSIG	WATER	- UNDER 30% SMYS (1 HR. MINIMUM)	1 HOURS
Maximum Test Pressure @ Min. Elevation	800 PSIG		- 30% SMYS & OVER (8 HRS. MINIMUM)	
			- PREINSTALLATION TEST (SEE ATTACHMENT 'A', GAS STD. A-34)	

Prepared By:	Date:	For Information or Changes, Call:	Approved By:	Date:
Redacted	5/9/11	Redacted	Redacted	5/9/11

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	10:30A 5/14/11 627 psig	Elevation at Test Point	0 FT	Min. Required Test Press. At Test Point (1)	600 PSIG	Max. Allowable Test Press at Test Point (4)	800 PSIG
Time and Date Test Ended	11:30A 5-14-11	Max. Elevation in Test Section	0 FT	Min. Indicated Test Pressure (2)	627 PSIG	Max. Indicated Test Pressure (5)	632 PSIG (1,688 PSIG OK)
Actual Duration of Test	1 hr. 20 MIN	Min. Elevation in Test Section	0 FT	Min. Test Pressure at Max. Elevation (3)	627 PSIG	Max. Test Pressure at Min. Elevation (6)	632 PSIG

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

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
CLP MOB/P-1000 PSI	5/2/11	AMETEK 0-3500 PSI S/N 2845	11-29-10

Test Supervisor	Date:	Approved By:	Date:
Redacted	5-14-11	Redacted	5-14-2011 5-23-11

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

SB_GT&S_0482603

Pacific Gas and Electric Company

Gas Pipeline Facilities Strength Test Pressure Report

(For Pipeline Facilities Designed to Operate over 100 PSIG)

COPY

62-4921 (Rev. 2/04)
California Gas Transmission
(Use 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-132A	Southern	Peninsula	41474079	April 19,2011

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

Test 3 – Tie-in pieces Location A & B, hydrostatic test piping and existing 16" L-132A. Existing pipeline material listed is from the "Material of Record" (refer to Dwg 41474079, sheet 5 of 5)

Hydrotest L-132A from MP 0.0057 – .075 Mountain View, CA (Test section 41)

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	33	Ft.	For Water	0.433 X Elev. Diff. =	12	PSIG
	Min. Elevation	5	Ft.	Other (Specify)		X Elev. Diff. =	PSIG
	Elev. Diff.	28	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.	
24.00	.375	Pipe, API 5L, X-60, DSAW (item #29)	43'3"	42.2	21.33	32.00	37.33	1688
16.00	.3125	Pipe, API 5L, X-52, ERW (item #30)	45'	44'	19.69	29.54	34.46	1828
16.00	.250	Pipe, Gr B, SMLS (item #11)	290'3"'	288.5	36.57	54.86	64.00	985 MAX.

Minimum Test Pressure @ Max. Elevation	600 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	700 PSIG			

Redacted 7-14-11 For Information or Changes, Call: Redacted (4) Date: 5/11/11

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

Dan Dawson

Note: Minimum test pressure and duration are not to be changed without written approval.

Time and Date Test Pressure Reached	5-12-11 1145 620 PSI	Elevation at Test Point	30 FT	Min. Required Test Press. At Test Point (1)	600 PSIG	Max. Allowable Test Press at Test Point (4)	700 PSIG	
Time and Date Test Ended	5-12-11 1945 677 PSI	Max. Elevation in Test Section	30 FT	Min. Indicated Test Pressure (2)	620 PSIG	Max. Indicated Test Pressure (5)	695 PSIG	< 985 PSIG OK
Actual Duration of Test	8 hrs.	Min. Elevation in Test Section	30 FT	Min. Test Pressure at Max. Elevation (3)	620 PSIG	Max. Test Pressure at Min. Elevation (6)	695 PSIG	

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

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: 7-14-11 Approved By: Redacted Date: 7-13-11

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
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REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING

(1) original document signed 6-23-11
(2) ORIGINAL Document Signed 5-12-11
(3) Original Document Signed 5-11-11
(4) original document signed 5-11-11

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Pacific Gas and Electric Company

Gas Pipeline Facilities Strength Test Pressure Report

(For Pipeline Facilities Designed to Operate over 100 PSIG)

COPY

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 ~~Rev. 1~~	Date Job Authorized
L-132A	Southern	Peninsula	41474079	April 19,2011

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

Test 2 – Tie-in pieces, hydrostatic test piping and existing 24" L-132A. Existing pipeline material listed; ie. pipe, elbows, sleeves, are from the "Material of Record" (refer to Dwg 41474079, sheet 5 of 5)

Hydrotest L-132A from MP ~~0.0057~~ .0075 – 1.489 Mountain View, CA (Test sections 40 & 41)

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	33 Ft.	For Water 0.433 X Elev. Diff. =	12 PSIG
	Min. Elevation	5 Ft.	Other (Specify) X Elev. Diff. =	PSIG
	Elev. Diff.	28 Ft.		

Size O.D.	Size W.T.	Pipe Specification: 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
16.00	.3125	Pipe, API 5L, X-52, ERW (item #30)	40'	0	19.69	29.54	34.46	1828
24.00	.375	Pipe, API 5L, X-60, DSAW (item #29)	86'	118' RSC	21.33	32.00	37.33	1688
16.00	.250	Pipe, SMLS, 45,000 SMYS (item #11)	335'	0	28.44	42.67	49.78	1266
24.00	.3125	Ell, Forged, Y-52 (item #4)	7 ea.	7 RSC	29.54	44.31	51.69	1219
24.00	.375	Ell, Forged, Gr.B (item #5)	11 ea.	11 RSC	36.57	54.86	64.00	985
24.00	.375	Ell, Forged, Y-42 (item #6)	2 ea.	2 RSC	30.48	45.71	53.33	1182
24.00	.375	Ell, Forged, Y-52 (item #7)	7 ea.	7 RSC	24.62	36.92	43.08	1463

		Test Fluid To Be Used	MINIMUM TEST DURATION	
Minimum Test Pressure @ Max. Elevation	600 PSIG	WATER	- UNDER 30% SMYS (1 HR. MINIMUM) - 30% SMYS & OVER (8 HRS. MINIMUM)	8 HOURS
Maximum Test Pressure @ Min. Elevation	700 PSIG		- PREINSTALLATION TEST (SEE ATTACHMENT 'A', GAS STD. A-34)	

Redacted Date: 05/08/2011 For Information or Changes, Call: Redacted Redacted Date: 5/8/11

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

Redacted

Note: Minimum test pressure and duration are not to be changed without written approval.

Time and Date Test Pressure Reached	5-9-11 1000 AM	Elevation at Test Point	7 FT	Min. Required Test Press. At Test Point (1)	~~612~~ 610 PSIG	Max. Allowable Test Press at Test Point (4)	~~700~~ 697 PSIG
Time and Date Test Ended	5-9-11 1800 PM	Max. Elevation in Test Section	~~28~~ 30 FT	Min. Indicated Test Pressure (2)	620 PSIG	Max. Indicated Test Pressure (5)	623 PSIG
Actual Duration of Test	8 hrs	Min. Elevation in Test Section	~~7~~ 5 FT	Min. Test Pressure at Max. Elevation (3)	~~623~~ 610 PSIG	Max. Test Pressure at Min. Elevation (6)	620 PSIG

Test Fluid Used: WATER

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

Make, Range, and Serial No. of Pressure Recording Gauge: CPL 1703, 0-1000 PSI — Date Last Calibrated: 5/2/11

Make, Range, and Serial No. of Dead Weight Tester (See Note 7): AMETEK 2845 0-3500 psi — Date Last Calibrated: 11-29-10

Test Super Redacted Date: 5-9-11 Approv Redacted Date: 6-23-11 5/9/11

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

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RECORDS SECTION (WC), GMS&TS
REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING

Red line corrections by R. Scott Clapp PE M027756
PE QC review 6/23/11

Pacific Gas and Electric Company

Gas Pipeline Facilities Strength Test Pressure Report

(For Pipeline Facilities Designed to Operate over 100 PSIG)

COPY

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

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-132A	Southern	Peninsula	~~Rev. 1~~ 41474079	April 19, 2011

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

Test 2 – Tie-in pieces, hydrostatic test piping and existing 24" & 16" L-132A. Existing pipeline material listed; ie. pipe, elbows, sleeves, are from the "Material of Record" (refer to Dwg 41474079, sheet 5 of 5)

Hydrotest L-132A from MP ~~0.0057~~ .0075 – 1.489 Mountain View, CA (Test sections 40 & 41)

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	33 Ft.	For Water	0.433 X Elev. Diff. =	12 PSIG
	Min. Elevation	5 Ft.	Other (Specify)	X Elev. Diff. =	PSIG
	Elev. Diff.	28 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
24.00	.250	Pipe, X-42 DSAW (item #12, 12A, 12B)	2062'	2062'	45.71	68.57	80.00	788
24.00	.3125	Pipe, X-52 DSAW (item #13)	612'	612'	29.54	44.31	~~51~~ 81.69	1219
24.00	.250	Pipe, X-52 SMLS (item #14)	40'	40'	36.92	55.38	64.62	975
24.00	.281	Pipe, X-42 SMLS (item #15)	16'	16'	40.67	61.01	71.17	886
24.00	.281	Pipe, 40,000 SMYS, SMLS (item #16)	4403'	4400'	42.70	64.06	74.73	843 MAX.
24.00	.286	Pipe, X-42, DSAW (item #17)	46'	46'	39.96	59.94	69.93	901
24.00	.3125	Pipe, X-52, DSAW (item #18)	253'	253'	29.~~49~~54	44.2431	51.~~81~~69	~~1221~~ 1219

		Test Fluid To Be Used	MINIMUM TEST DURATION	
Minimum Test Pressure @ Max. Elevation	600 PSIG	WATER	- UNDER 30% SMYS (1 HR. MINIMUM)	8 HOURS
Maximum Test Pressure @ Min. Elevation	700 PSIG		- 30% SMYS & OVER (8 HRS. MINIMUM)	
			- PREINSTALLATION TEST (SEE ATTACHMENT 'A', GAS STD. A-34)	

Redacted	Date: 5/8/2011	Redacted	Redacted	Date: 5/9/11

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	5-9-11 10 AM	Elevation at Test Point	7 FT	Min. Required Test Press. At Test Point (1)	~~610~~ 612 PSIG	Max. Allowable Test Press at Test Point (4)	~~760~~ 760 PSIG
Time and Date Test Ended	5-9-11 1800 pm	Max. Elevation in Test Section	~~28~~ 30 FT	Min. Indicated Test Pressure (2)	620 PSIG	Max. Indicated Test Pressure (5)	~~623~~ 623 PSIG
Actual Duration of Test	8 hrs	Min. Elevation in Test Section	~~7~~ 5 FT	Min. Test Pressure at Max. Elevation ~~610~~ (3)	~~623~~ 623 PSIG	Max. Test Pressure at Min. Elevation ~~624~~ (6)	~~620~~ 620 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	AMETER 2845 0-3500 PSI	11-29-10

Test S	Redacted	Date: 5-9-11	Appro	Redacted	Date: 5-~~13~~9/11

PUT SCHEMATIC PIPING SKETCH ON BACK OF THIS SHEET

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NOTES:

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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

Red line corrections by R Scott Dept PE 1027756
Per QC review

5/23/11

SB_GT&S_0482606

Pacific Gas and Electric Company

Gas Pipeline Facilities Strength Test Pressure Report

(For Pipeline Facilities Designed to Operate over 100 PSIG)

COPY

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

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

Feeder Main Number, Line Number, or Station Name	Area	Division/District	Job Number Rev. 1	Date Job Authorized
L-132A	Southern	Peninsula	41474079	April 19, 2011

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

Test 2 – Tie-in pieces, hydrostatic test piping and existing 24" & 16" L-132A. Existing pipeline material listed; ie. pipe, elbows, sleeves, are from the "Material of Record" (refer to Dwg 41474079, sheet 5 of 5)

Hydrotest L-132A from MP ~~0.0057~~ .0075 – 1.489 Mountain View, CA (Test sections 40 & 41)

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	33 Ft.	For Water	0.433 X Elev. Diff. =	12 PSIG
	Min. Elevation	5 Ft.	Other (Specify)	X Elev. Diff. =	PSIG
	Elev. Diff.	28 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.	
24.00	.375	Pipe, Gr.B, SMLS (item #19)	54'	59' RSC	36.57	54.86	64.00	985
24.00	.250	Sleeve, Type B, X-42 (item #21)	1 ea.	1 RSC	45.71	68.57	80.00	788
24.00	.312	Sleeve, Type B, X-42 (item #22)	2 ea.	2 RSC	36.63	54.95	64.10	983
24.00	.375	Sleeve, Type B, ATSM 242, X-50 (item #24)	2 ea.	2 RSC	25.60	38.40	44.80	1406
4.50	.237	Pipe, API 5L, Gr.B SMLS (item #25)	3'	43' RSC	10.85	16.27	18.99	3318
24.00	.500	PIPE, API 5L, X-60, DSAW	4'	4' RSC	16.00	24.00	28.00	2250

		Test Fluid To Be Used	MINIMUM TEST DURATION	
Minimum Test Pressure @ Max. Elevation	600 PSIG	WATER	- 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	700 PSIG			

Prepared By:	Date:	For Information or Changes, Call:	Approved By:	Date:
Redacted	5/8/2011	Redacted	Redacted	5/9/11

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	5-9-11 10 AM	Elevation at Test Point	7 FT	Min. Required Test Press. At Test Point (1) 610	~~612~~ PSIG	Max. Allowable Test Press at Test Point (4) 699	700 PSIG
Time and Date Test Ended	5-9-11 1800 pm	Max. Elevation in Test Section	~~28~~ 30 FT	Min. Indicated Test Pressure (2)	620 PSIG	Max. Indicated Test Pressure (5)	623 PSIG
Actual Duration of Test	8 hrs	Min. Elevation in Test Section	~~7~~ 5 FT	Min. Test Pressure at Max. Elevation (3) 610	623 PSIG	Max. Test Pressure at Min. Elevation (6) 624	~~620~~ 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/1708, 0/1000 psi	5-2-11	AMETEK 2845 0-3500 psi	11-29-10

Test Supervised By:	Date:	Approved By:	Date:
Redacted	5-9-11	Redacted 6-23-11	5/9/11

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

Redline corrections by RSC Per QC Review 6/23/11

1 hr test

COPY

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 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-132A	Southern	Peninsula	41474079	April 19, 2011

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

Test 1 - Temporary pup and cap pieces to seal off tied ends of existing piping to facilitate hydrostatic test (refer to sheet 4, details 1, 2, & 3)

Hydrotest L-132A from MP 0.0057 – 1.489 Mountain View, CA (Test sections 40 & 41)

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	Ft.	For Water	0.433 X Elev. Diff. =	PSIG
	Min. Elevation	Ft.	Other (Specify)	X Elev. Diff. =	PSIG
	Elev. Diff.	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.	
24.00	.375	API 5L, GR X-60, DSAW	5'	3' DD	21.33	32.00	37.33	1688 MAX
16.00	.3125	API 5L, GR X-52, ERW	4'	4' DD	19.69	29.54	34.46	1829

		Test Fluid To Be Used	MINIMUM TEST DURATION	
Minimum Test Pressure @ Max. Elevation	600 PSIG	WATER	- UNDER 30% SMYS (1 HR. MINIMUM) - 30% SMYS & OVER (8 HRS. MINIMUM) - PREINSTALLATION TEST (SEE ATTACHMENT 'A', GAS STD. A-34)	1 HOURS
Maximum Test Pressure @ Min. Elevation	700 PSIG			

Prepared By: Redacted Date: 4/18/11 For Information or Changes, Call: Redacted Approved By: Redacted Date: 4/20/11

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	8:40 A.M 4-28-2011	Elevation at Test Point	0 FT	Min. Required Test Press. At Test Point (1)	600 PSIG	Max. Allowable Test Press at Test Point (4)	700 PSIG
Time and Date Test Ended	9:59 4-28-2011	Max. Elevation in Test Section	0 FT	Min. Indicated Test Pressure (2)	624 PSIG	Max. Indicated Test Pressure (5)	639 PSIG
Actual Duration of Test	1 hr 19 min	Min. Elevation in Test Section	0 FT	Min. Test Pressure at Max. Elevation (3)	624 PSIG	Max. Test Pressure at Min. Elevation (6)	639 PSIG

639 < 640 PSI

Test Fluid Used: WATER

Pipe Specification and Footage Verified (See Part I): X-52 / X-60 / X-52 - 4' DD

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
INVALCO 16729 0-1000	3-2-11	AMTEK 0-3500 PSI HL3845	11-29-10

Redacted CCI Date: 4-28-11 Redacted Date: 4-28-2011 6-22-11

PUT SCHEMATIC PIPING SKETCH ON BACK OF THIS SHEET

SHOW LOCATION OF FACILITY TESTED, MINIMUM AND MAXIMUM ELEVATION IN FEET, MILE POINT ... IONAL 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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REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING