



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

Feeder Main Number, Line Number, or Station Name L-132	Area 1	Division/District Peninsula	Job Number 41497355	Date Job Authorized August 9, 2011
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Description of Job -- Include Reference Drawing Numbers, and Pipeline Mileposts
Test 2 - Hydrostatically test tie-in pieces, hydrostatic test piping and existing 30" and 36" L-132. Existing pipeline material listed; ie. pipe, elbows, sleeves are from the "Material of Record" (refer to Dwg 41497355, sheet 7 of 7)
Hydrotest L-132 from MP 31.95 - 34.68 Hillsborough, CA (Test section 34)

Location Class 3	Design Factor (F) .5	MAOP to be Established for this Piping by this Test 400 PSIG	Future Design Pressure 400 PSIG
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STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)	Max. Elevation 699 Ft.	Min. Elevation 567 Ft.	Elev. Diff. 132 Ft.	Static Head Calculation For Water $0.433 \times \text{Elev. Diff.} =$ 57 PSIG Other (Specify) _____ X Elev. Diff. = _____ PSIG
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Size		Pipe Specification API or ASTM Grade Long Seam (ERW, DSAW, Seamless, Etc.)	Foolage to Be Tested	Pipe Spec. and Foolage Verified In Field	% of SMYS			Pressure to Give 90% SMYS
O.D.	W.T.				At MAOP	At Min. Test Press.	At Max. Test Press.	
36.00	0.500	Pipe, API 5L X-65, DSAW (Item#100)	<i>1'</i>	<i>5" DAB</i>	22.15	33.23	45.03	1625
30.00	0.375	Pipe, API 5L X-65, DSAW (Item#103)	<i>54"</i>	<i>43.85 DBB</i>	24.62	36.92	50.03	1463
36.00	0.3125	Pipe, API 5L X-52, DSAW (Item#1)	4676'	<i>MOR</i>	44.31	66.46	90.06	813
30.00	0.375	Pipe, API 5L X-52, DSAW (Item#2)	9739'	<i>7753.8 DAB</i>	30.77	46.15	62.54	1170
30.00	0.3125	Pipe, API 5L X-52, DSAW (Item#3)	15'	<i>MOR</i>	36.92	55.38	75.05	975
12.75	0.375	Pipe, API 5L GR B, SMLS (Item#10)	2'-6"	<i>MOR</i>	19.43	29.14	39.49	1853
2.375	0.154	Pipe, API 5L GR B, SMLS (Item#13)	<i>4'</i>	<i>MOR D'S</i>	8.81	13.22	17.91	4085
2.375	0.154	Pipe, API 5L GR B, SMLS (Item#13)	67'	<i>MOR</i>	8.81	13.22	17.91	4085

Minimum Test Pressure @ Max. Elevation 600 PSIG	Maximum Test Pressure @ Min. Elevation 813 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
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Prepared By: Redacted	Date: 8/9/11	For Information or Changes, Call: Mark Cabral (925) 588-3640	Approved By: <i>Mark Cabral</i>	Date: 8-10-11
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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 <i>1:05 PM 10-20-11</i>	Elevation at Test Point 568 FT	Min. Required Test Press. At Test Point (1) 657 PSIG	Max. Allowable Test Press at Test Point (4) 813 PSIG
Time and Date Test Ended <i>9:15 PM 10-20-11</i>	Max. Elevation in Test Section 699 FT	Min. Indicated Test Pressure (2) 669 PSIG	Max. Indicated Test Pressure (5) 777 PSIG
Actual Duration of Test <i>8-Hours 10-minutes</i>	Min. Elevation in Test Section 567 FT	Min. Test Pressure at Max. Elevation (3) 612 PSIG	Max. Test Pressure at Min. Elevation (6) 777 PSIG

Test Fluid Used <i>water</i>	Pipe Specification and Foolage Verified (See Part I) <i>DAB A601, D'S TEST</i>
Make, Range, and Serial No. of Pressure Recording Gauge <i>clifmeck 0-1000 MFC42553</i>	Date Last Calibrated 10-10-11
Make, Range, and Serial No. of Dead Weight Tester (See Note 7) <i>METEX 25-3000 HL-4321</i>	Date Last Calibrated 10-10-11
Redacted	Date: 10-20-11
Redacted	Date: 11-2-11

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:**
- 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**
 JOB FILE (AT SPONSORING ORGANIZATION)
 GSM&TS RESPONSIBLE DISTRICT SUPERINTENDENT
 PROJECT MANAGER/PROJECT ENGINEER
 TECHNICAL & CONSTRUCTION SERVICES - ASSIGNED JOBS ONLY
 CAPITAL ACCOUNTING (FOREMAN'S COPY OF JOB)
 RECORDS SECTION (WC), GSM&TS
 REPORT FAILURES UNDER TEST TO GAS ENGINEERING & PLANNING



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 **2** of **2**

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Description of Job - Include Reference Drawing Numbers, and Pipeline Mileposts
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Hydrotest L-132 from MP 31.95 - 34.68 Hillsborough, CA (Test section 34)

Location Class 3	Design Factor (F) .5	MAOP to be Established for this Piping by this Test 400 PSIG	Future Design Pressure 400 PSIG
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STATIC HEAD DUE TO ELEVATION DIFFERENCE (WHERE APPLICABLE)	Max. Elevation 699 Ft.	Static Head Calculation For Water 0.433 X Elev. Diff. = 57 PSIG Other (Specify) _____ X Elev. Diff. = _____ PSIG
	Min. Elevation 567 Ft.	
	Elev. Diff. 132 Ft.	

Size		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			Pressure to Give 90% SMYS
O.D.	W.T.				At MAOP	At Min. Test Press.	At Max. Test Press.	
1.66	0.191	Pipe, API 5L GR B, SMLS (Item#11)	30'	<i>0.2 DRB</i>	4.97	7.45	10.09	7249
1.05	0.113	Pipe, API 5L GR B, SMLS (Item#12)	115'	<i>MOR</i>	5.31	7.96	10.79	6780
36.00	0.375	Elbow, LR, X-52 Y-52 (Item#4)	17 Ea.	<i>MOR</i>	36.92	55.38	75.05	975
30.00	0.500	Elbow, SR, Grade Unknown (Item#5)	3 Ea.	<i>MOR</i>	----	----	----	----
36.00	0.500	Sleeve, 50000 SMYS (Item#6)	4 Ea.	<i>MOR</i>	28.80	43.20	58.54	1250
30.00	0.500	Sleeve, 50000 SMYS (Item#7)	4 Ea.	<i>MOR</i>	24.00	36.00	48.78	1500

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 813 PSIG			

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Time and Date Test Pressure Reached 1:05 PM 10/20/11	Elevation at Test Point 568 FT	Min. Required Test Press. at Test Point (1) 657 PSIG	Max. Allowable Test Press at Test Point (4) 813 PSIG
Time and Date Test Ended 9:15 PM 10-20-11	Max. Elevation in Test Section 699 FT	Min. Indicated Test Pressure (2) 669 PSIG	Max. Indicated Test Pressure (5) 707 PSIG
Actual Duration of Test 8-Hours 10-minutes	Min. Elevation in Test Section 567 FT	Min. Test Pressure at Max. Elevation (3) 612 PSIG	Max. Test Pressure at Min. Elevation (6) 717 PSIG

Test Fluid Used water	Pipe Specification and Footage Verified (See Part I) DRB A601
Make, Range, and Serial No. of Pressure Recording Gauge CLIF model 0-1000 MFG42553	Date Last Calibrated 10-10-11
Make, Range, and Serial No. of Dead Weight Tester (See Note 7) METEK 25-3000 HL-4321	Date Last Calibrated 10-10-11

Test Supervised By: Redacted	Date: 10-20-11	Approved: Redacted	Date: 11-2-11
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