

Pacific Gas and Electric Company Project 1581

Strength Test Pressure Report L-114 Replacement MP 12.70 – MP 16.57



Gulf Document No.: 1581-114_2A-RP-0001-00_0

Rev. No.	Date	Revision Description	Preparer Name	Reviewing Engineer	Project Manager	Client Approval	
0	9/9/2013	Initial Submittal	Redacted	Redacted		Redacted	



REVISION LOG

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PROJECT:	PG&E 201	3 PIPELINE	REPLACE	MENT PRO	OJECT				
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REPORT NU	JMBER:							*	
							1581		

TITLE: L-114 Strength Test Pressure Report, MP 12.70 – 16.57

Provide a brief description of changes for all revisions following Rev. 0

Rev.	Date	Revision Description
0	9/9/2013	Initial submittal



Use in Accordance with Numbered Document A-34, A-37, and GO 112-E

Sheet 1 of 2

Test Number <u>6</u> of <u>8</u> STPR Revision Number <u>0</u>

PART 1 - TEST DESIGN DATA (TO BE PREPARED BY PROJECT ENGINEER/ESTIMATOR)

Test D	escripti	ion										1.0		
Line No	ımber oı	Static	on Name L-11	4			Division/District Diablo Job Number 30943472							
Purpos	e of Tes	t: Tes	t n ew i n stalla	tion			MAOP to be Established by this Test 720 PSIG							
Test Ti	e-in Pie	ces at	eing Tested (ir MP 12.70, M 57. Wall Map	P 13.73, MP	14.35,	MP 14.58	3 and N	MP 16		ewly insta	lled 24" L	-114 from		
			ike test required ormed? Ye		the second of the second		If no	spike	test for	existing fa	cility, exp	lain:		
Static	Head C	alcula	tion										10.00	
	ım Eleva		<u>N/A</u> F				For'	Water	_(Elev. D	iff.) x 0.43	3 = _ PSIC			
	m Eleva on Differ		<u>N/A</u> F <u>N/A</u> F						Test Med responsible		_ or guidance	on completin	g this field.	
Pipe to	be Tes	ted										Migration 1		
Si OD (in ₋)	ze WT (in.)	API AST Spe	M (psi)	Long Seam (ERW, DSAW, SMLS etc.)	JF (E)	Footage to be Tested	Acti Foot		Location Class	Most Restrictiv Design Factor	At MAOP	% of SMY: At Min. Test Press.	At Max. Test Press.	
24,000	0.375	API-	5L 60000	SAWL	1,00	100			3	0,5	38,40	90.03	93.01	
22,000	0.375	API-		HFW	1.00	25			3	0,5	32.49	76.18	78,70	
24,000	0,375	MSS-SI	P-75 60000	24x22 Reducer		2 ea			3	0.5	38,40	90,03	93,01	
22,000	0.375	MSS-SI	P-75 60000	24x22 Reducer	*				3	0.5	35.19	82.52	85,26	
Pipe sp	ecs veri	fied in	the test (exc field Si	gnature of pe	rson sı	pervising		wall th	rickness	and grade	as the pi	oe⊠		
Test S	pecifica	tions	(include a spik	e test when tes	ting exi	sting faciliti	es)							
Test Fac	tor <u>1.5</u>	[1A]	Min, Test Pres	sure at Max. E	lev. <u>168</u>	<u>PSIG</u>	[1B] Max. Test Pressure at Min. Elev. 1744 PSIG							
Spike T	est	[10]	Spike Factor				[10]	Spike	Pressure	at Max. Ele	v. Box [1A] :	([1C] =	PSIG	
(comple for spike		[1E]	Spike Pressu	e at Min. Elev.		_ PSIG	[1F]		E] x 0.95 =		PSIG			
Test Me	edium to	be Us	ed <u>WATER</u>	Minimum T	est Dui	ation <u>8.</u>	<u>0</u> Hour	8	■ 30% S ■ Pre-in:		ver: 8 hours st: Refer to			
Signat	ures	illia.												
Prepared by (signature) Redacted						rint Name dacted	and Ph	none N	lumber	\neg	Date 9/6/2013		AN ID edacte	
Redacte	ed by le	ianotu				rint Name edacted					Date 1 AN ID Redacted			
Test St	pervise	a by (s	ignature)			me and Da eached (fro				ime and I inded (fron		Actual Du Test (from		



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Sheet 2 of 2

Test Number 6 of 8 STPR Revision Number 0

PART 2 - TEST DATA (TO BE PREPARED BY PERSON SUPERVISING TEST AT TIME OF TEST)

Test Elevation										
Elevation at	Max.	Elevation	in Test	t Section	FT	Min. E	levation in Test Section	onFT		
Test Point FT	[2A]	Static Hea	id b/t T	est Point and M	lax. Elev. PSIG	[2B] Static Head b/t Test Point and Min. El				
No Spike Test: Calc	ulatio	ns and Te	st Re	suits (complete l	for strength test with	out a sp	ike test)			
Min. Required Test Press Box [1A] + Box [2A] =			1	Allowable Test Pro B] – Box [2B] =		Pressu	re Range During Test _	PSIG		
[2C] Min. Test Pressure		ted PSIG	[2D] Max. Test Pressure IndicatedPSIG							
Calculated Min. Test Pres Box [2C] – Box [2A] =		Calculated Max. Test Pressure at Min. Elev. Box [2D] + Box [2B] =PSIG								
Spike Test: Calculat	ions a	and Test F	Result	S (complete for s	trength test with a sp	i oike test)			
Spike Pressure at Test P Box [1E] – Box [2B] =	sig	Box [1A] + Box [2A] = PSIG				Max. Post-Spike Pressure at Test Pressure Range				
[2E] Spike Pressure Inc	esig .	[2F]	Min. Test Pressu	re Indicated PSIG	[2G]		ressure Indicated PSIG			
Calculated Spike Pressu Box [2E] + Box [2B] =			lated Min. Test Pro F] – Box [2A] =	essure at Max. Elev, PSIG		ated Max. Post-Spike Pre				
Test Acceptance										
Were Leaks Observed ☐ Yes ☐ No	?				If yes, explain:					
Acceptable Strength T Yes No Report strength test failure		gulatory Com	If no, explain:							
Test Medium Used 1	ime ar	nd Date Te	st Pres	sure Reached	Time and Date Te	st End	of Test			
Test Instruments							antino de la companya			
Make, Range, and Ser	ial No.	of Pressur	e Reco	ording Device			Date Last Calib	rated		
Make, Range and Seri A dead weight tester and/o or greater than 90% of SM	r an ele				r tests of any pipe seg	ment eq	ual to Date Last Calib	rated		
Signatures					and the second					
Test Supervised by (s	Test Supervised by (signature)			Print Name			Date	LANID		
Testing Contractor (if	third p	arty)					<u> </u>			
Approved by (signature)				Print Name			Date	LANID		

Attachments

- Test chart
- Schematic piping sketch
- Test log with pressure noted every 15 minutes

Distribution

 Gas Job Closeout Desk, 6121 Bollinger Canyon Road, Building Z1, San Ramon, CA 94583



Use in Accordance with Numbered Document A-34, A-37, and GO 112-E

Sheet <u>1</u> of <u>2</u> Test Number <u>7</u> of <u>8</u> STPR Revision Number <u>0</u>

PART 1 - TEST DESIGN DATA (TO BE PREPARED BY PROJECT ENGINEER/ESTIMATOR)

Test D	escripti	ion		Talent Later Ja									
Line No	ımber oı	Static	on Name L-1	4			Division/District Diablo Job Number 30943472						
Purpos	e of Tes	t: Tes	t new installa	tion			MAG	OP to	be Estab	lished by I	his Test	720 PSIG	
Test S	and Cre	ek Tie		nclude reference						.70 to MF	16.57. V	Vall Map E	B-58.
	an and a second and			Existing	10 m and 10 m	The format of the first terms of the	If no	spik(e test for	existing fa	acility, exp	olain:	
Static	Head C	alcula	tion										
Maxim	ım Eleva	ition	<u>92</u> F	T			For	Water	<u>0 (</u> Elev.	Diff.) x 0.4	133 = <u>0</u> PS	IG	
	Minimum Elevation 92 FT Elevation Difference 0 FT								Test Mer	All the second s	or guidance	on complet	ng this field,
Pipe to	be Tes	ted											
Si; OD (in.)	ze WT (in.)	API AST Spe	M (psi)	Long Seam (ERW, DSAW, SMLS etc.)	JF (E)	Footage to be Tested	Act Foot		Location Class	Most Restrictiv Design Factor	e At MAOF	% of SM* At Min. Test Press.	At Max. Test Press.
24.000	0.375	API-	5L 60000	SAWL	1,00	25			3	0.5	38,40	90.03	93.01
22,000	0.375	API-	5L 65000	HFW	1,00	10			3	0,5	32,49	76,18	78,70
24.000	0,375	MSS-SI	P-75 60000	24x22 Reducer		1 ea			3	0.5	38.40	90.03	93.01
22.000	0.375	MSS-SI	P-75 60000	24x22 Reducer	•	Λ	-		3	0,5	35.19	82,52	85.26
Pipe sp Compo	ecs veri nent(s) l	fied in Imiting	field □ Si j test pressur	ept those liste gnature of pe e/Control Poi e test when tes	rson su	ptions	test	wall t	hickne s s	and grade	as the pi	pe 🗵	
Test Fac	tor <u>1,5</u>	[1A]	Min. Test Pre	sure at Max. E	lev. <u>1688</u>	B PSIG	[1B]	[1B] Max. Test Pressure at Min. Elev. <u>1744</u> PSIG					
Spike T	est	[1C]	Spike Factor				[1D]	Spike	Pressure	at Max. Ele	v. Box [1A]	x [1C] =	PSIG
(comple for spike		[1E]	Spike Pressu	e at Min. Elev.		_ PSIG	[1F]		1E] x 0.95 =	Contract to the second section of	PS G		
Test Me	edium to	be Us	ed <u>WATER</u>	Minimum T	est Dur	ation <u>8.</u>	<u>)</u> Houi	s	• 30% \$ • Pre-in		ver: 8 hours est: Refer to		
Signat	ures												
Prepared by (signature) Redacted						Print Name and Phone Number Redacted			Yumber		Date 9/6/2013		LAN ID edacte
edacted					- H _	Redacted Date 9/9/13					_	LAN ID edacted	
Test Supervised by (signature)					44 이 1일 회가 원활이 하는 항상 하는 하는데 하고 사가 하는데 하는데 하는데 하다를 했다.			Time and Date Test Actual Duration of Ended (from Part 2) Actual Duration of Test (from Part 2)					



Use in Accordance with Numbered Document A-34, A-37, and GO 112-E

Sheet 2 of 2

Test Number 7 of 8 STPR Revision Number 0

PART 2 - TEST DATA (TO BE PREPARED BY PERSON SUPERVISING TEST AT TIME OF TEST)

Test Elevation									
Elevation at	Max. Elevation	in Test S	Section	FT	Min. El	evation in Test Se	ectionFT		
Test Point FT	[2A] Static Hea	ad b/t Te:	st Point and M	lax. Elev. PSIG	[2B] Static Head b/t Test Point and Min. Ele				
No Spike Test: Calc	ulations and Te	est Resu	u its (complete f	or strength test with	out a spi	ke test)			
Min. Required Test Press Box [1A] + Box [2A] =			lowable Test Pre] – Box [2B] =	essure at Test Point PSIG	Pressur	e Range During Tes	tPSIG		
[2C] Min. Test Pressure	e Indicated PSIG	[2D] ^A	Max. Test Press	ure Indicated PSIG					
Calculated Min. Test Pre Box [2C] – Box [2A] =		Calculated Max. Test Pressure at Min. Elev. Box [2D] + Box [2B] =PSIG							
Spike Test: Calcula	tions and Test I	Results	(complete for s	trength test with a sp	oike test)				
Spike Pressure at Test P Box [1E] – Box [2B] =			quired Test Pres] + Box [2A] =	ssure at Test Point PSIG	Point	st-Spike Pressure a Box [2B] =	After Spike Test		
[2E] Spike Pressure Inc	dicated PSIG	[2F] A	Min. Test Pressu	re Indicated PSIG	[2G]	Max. Post-Spike Te	st Pressure IndicatedPSIG		
Calculated Spike Pressu	re at Min. Elev.	Calculat	ted Min. Test Pro	essure at Max. Elev.	Calculat	ted Max. Post-Spike	Pressure at Min. Elev.		
Box [2E] + Box [2B] =	PSIG	Box [2F]	– Box [2A] =	PSIG	Box [2G] + Box [2B] =	PSIG		
Test Acceptance									
Were Leaks Observed ☐ Yes ☐ No	?			If yes, explain:					
Acceptable Strength T Yes No Report strength test failure		npliance		If no, explain:					
Test Medium Used	Γime and Date Te	st Press	ure Reached	Time and Date Te	est Ended Actual Duration of Test				
Test Instruments									
Make, Range, and Ser	ial No. of Pressu	re Recor	ding Device			Date Last Ca	alibrated		
Make, Range and Seri A dead weight tester and/o or greater than 90% of SM	or an electronic press			r tests of any pipe seg	rment equ	Date Last Ca	alibrated		
Signatures	Sharifatin Land III								
Test Supervised by (signature)			Print Name			Date	LANID		
Testing Contractor (if	third party)						.		
Approved by (signatu	P	Print Name			Date	LAN ID			

Attachments

- Test chart
- Schematic piping sketch
- Test log with pressure noted every 15 minutes

Distribution

 Gas Job Closeout Desk, 6121 Bollinger Canyon Road, Building Z1, San Ramon, CA 94583



Use in Accordance with Numbered Document A-34, A-37, and GO 112-E

Sheet 1 of 2

Test Number <u>8</u> of <u>8</u> STPR Revision Number <u>0</u>

PART 1 - TEST DESIGN DATA (TO BE PREPARED BY PROJECT ENGINEER/ESTIMATOR)

Test D	escripti	on									100				
Line N	umber o	Static	on Name L-11	4			Division/District Diablo Job Number 30943472								
Purpos	e of Tes	t: Tes	t new installa	tion			MAOP to be Established by this Test 720 PSIG								
Descri	ption of I	Pipe be	eing Tested (ir	clude reference	drawing	ıs, field static	ning, a	nd mile	points)						
Test n	ewly inst	alled 8	3" line from M	LV-13.05 on	L-114	to line L-3	116. V	Vall M	ap E B -58	3. Drawing	3094347	2, sheet 6	iA.		
The second secon	· · · · · · · · · · · · · · · · · · ·	1. 15.00 10.00 10.00	ike test required ormed? ∐ Ye		The second second second		If n	o spike	test for	existing fa	cility, exp	ain:			
Static	Head C	alcula	tion												
100000000000000000000000000000000000000	um Eleva		95 F	T			For	Water	0 (Elev. I	Diff.) x 0.4	33 = 0 PSK	•			
Minimum Elevation 95 FT							For Water <u>0 (Elev. Diff.) x 0.433 = 0 PSIG</u> For Other Test Medium								
Elevati	on Differ	ence	<u>o</u> F	Γ							or guidance	on completir	ng this field		
Pipe to	be Tes	ted													
Si OD	ze WT	API AST		Long Seam (ERW,	JF (E)	Footage to be	- 1	tual tage	Location Class	Most Restrictiv	e At	% of SMY At Min.	S At Max.		
(in.)	(in.)	Spe		DSAW, SMLS etc.)		Tested				Design Factor	МАОР	Test Press.	Test Press.		
8.625	0.322	API-	5L 3500 0	SMLS	1.00	260			3	0,5	27.55	56.52	57.78		
16,000	0.375	API-	5L 35000	SMLS	1.00	10			3	0.5	43.89	90.03	92.04		
16.000	0.312	API-	5L 5200 0	HFW	1.00	10			3	0.5	35.50	72.83	74,46		
							-								
							Ì								
All fitti	ngs inclu	ıded in	the test (exc	ept those list	ed abov	ve) are the	same	wall th	nickness	and grade	as the pip	e 🛛			
Pipe sp	ec s veri	fied in	field ☐ Si	gnature of pe	rson sı	upervising	test								
Compo	nent(s) l	imiting	g test pressur	e/Control Poi	nt exce	ptions									
Test S	pecifica	tions	(include a spik	e test when tes	iting exi	sting faciliti	es)								
Test Fac		[1A]	Min. Test Pres				[18]	Max.	Test Press	ure at Min.	Elev. <u>1510</u> i	PSIG			
Spike T	est	[10]	Spike Factor				[10]	Spike	Pressure	at Max. Elev. Box [1A] x [1C] =PSiG					
(comple	te only	[1E]	Spike Pressu	e at Min. Elev.		_ PSIG	(1F)								
for spike	e test)		<u> </u>				<u> </u>	Box [1			PSIG				
Test M	edium to	be Us	ed <u>WATER</u>	Minimum T	'est Dui	ration <u>8.</u>	<u>Q</u> Hou	rs	= 30% S = Pre-in:	SMYS and o stallation Te	: 1 hour min /er: 8 hours st: Refer to / nutes minimu	minimum \-34, Attach	a tri in Tablita in the c		
Signat	ures	171							Opino	. 300 00 1111		(moisued			
Prepared by (signature) Redacted						Print Name and Phone Number Redacted				Date LA 9/9/2013 Reda					
Annroi	od by /e	ionatri	rol /			rint Name					9/9/2013 Dat e		AN ID		
Redacte													edacted		
Test Supervised by (signature)					Time and Date Test Pressure Time and Date Test Actual Duration Reached (from Part 2) Ended (from Part 2) Test (from Part 2										



Use in Accordance with Numbered Document A-34, A-37, and GO 112-E

Sheet 2 of 2

Test Number <u>8 of 8</u> STPR Revision Number <u>0</u>

PART 2 - TEST DATA (TO BE PREPARED BY PERSON SUPERVISING TEST AT TIME OF TEST)

Test Elevation				All Parties and All Parties an		Charles Co.				
	Max. Elevation	in Test	Section	FT	Min. El	Min. Elevation in Test Section FT				
Elevation at Test PointFT	[2A] Static Hea	id b/t T	est Point and M	lax. Elev. PSIG	[2B] Static Head b/t Test Point and Min. Elev					
No Spike Test: Calc	ulations and Te	st Re	sults (complete f	for strength test with	out a sp	ike test)				
Min. Required Test Press Box [1A] + Box [2A] =			Allowable Test Pre B] – Box [2B] =		Pressu	re Range During Test	PSIG			
[2C] Min. Test Pressure	e Indicated PSIG	[2D]	Max. Test Press	ure Indicated PSIG						
Calculated Min. Test Pre Box [2C] – Box [2A] =		Calculated Max. Test Pressure at Min. Elev. Box [2D] + Box [2B] = PSIG								
Spike Test: Calcula	tions and Test i	Result	S (complete for s	trength test with a s	oike test)					
Spike Pressure at Test P Box [1E] – Box [2B] =			Required Test Pres A] + Box [2A] =	ssure at Test Point PSIG	Max. Post-Spike Pressure at Test Pressure Range Point After Spike Test					
[2E] Spike Pressure Inc.	dicated PSIG	[2F]	Min. Test Pressu	ire Indicated PSIG	[2G] Max. Post-Spike Test Pressure IndicatedPSIG					
Calculated Spike Pressu Box [2E] + Box [2B] =			lated Min. Test Pro F] – Box [2A] =	essure at Max. Elev. PSIG	Calculated Max. Post-Spike Pressure at Min. Elev. Box [2G] + Box [2B] = PSIG					
Test Acceptance		1								
Were Leaks Observed ☐ Yes ☐ No	1?			If yes, explain:						
Acceptable Strength Yes No Report strength test failure		npliance		If no, explain:						
Test Medium Used :	Γime and Date Te	st Pres	sure Reached	Time and Date To	est Ended Actual Duration of Test					
Test Instruments		10 H. Jan								
Make, Range, and Ser	ial No. of Pressu	re Rec	ording Device			Date Last Calibr	ated			
Make, Range and Seri A dead weight tester and/or greater than 90% of SN	or an electronic press	e ight T sure rec	ester order is required fo	or tests of any pipe seg	gment eq	Date Last Calibr	ated			
Signatures										
			Print Name	^o rint Name			LANID			
Testing Contractor (if	third party)									
Approved by (signature)			Print Name			Date	LANID			

Attachments

- Test chart
- Schematic piping sketch
- Test log with pressure noted every 15 minutes

Distribution

 Gas Job Closeout Desk, 6121 Bollinger Canyon Road, Building Z1, San Ramon, CA 94583