# PIPELINE SAFETY ENHANCEMENT PLAN PIPELINE REPLACEMENT AND ILI RETROFIT PROGRAM



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



Project No. 1581

PRSRS 27979; GM 30943472

Rev. No.	Date	Revision	GIE	Approval	Client Approval
01	11/08/2012	Initial Submittal		Redacted	
02	8/8/2013	Changed 22" Pipe Spec			8/13/2013 Redacte
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Use in Accordance with Numbered Document A-34, A-37, and GO 112-E

Sheet <u>1</u> of <u>2</u>

Test Number 1 of 5 STPR Revision Number 02

Test D	escripti	on					***************************************					
Line N	umber or	Statio	n Name L-11	4			Divi	sion/Distric	t Diablo	Job N	umber 3	0943472
Purpos	e of Tes	t: Tes	t new installa	tion	***************************************		MAC	P to be Es	tablished b	y this Test	<u>720</u> PSI	3
10 To			ing Tested (in alled 24" L-1			The second second second second	7.7			j 30943472	?, sheets	4-6.
			ke test required ormed? Tye				If no	spike test	for existing	facility, ex	plain:	
Static	Head C	alcula	tion									
	um Eleva		<u>94</u> F				For	Water 8 (El	ev. Diff.) x 0	.433 = <u>4</u> PS	IG	1979-1979
and advantage of the same	ım Eleva on Differ	11,101-11-11	86 F 8 F				3	Other Test	TO THE PERSON NAMED IN	***************************************		***************************************
	-		<u>8</u> F				Cont	act the respon	rsible enginee	or for guidanc	e on compl	eting this field.
	be Tes	ted				<u> </u>	_				A	E 83.279
OD (in.)	ze WT (in.)	API AST Spe	M (psi)	Long Seam (ERW, DSAW, SMLS etc.)	JF (E)	Footage to be Tested	Foot	anner 🐧 nearthean		tive At	% of S At M P Tes Pres	in. At Max it Test
24.000	0.375	API-	5L 60000	SAWL	1.00	1855	**************************************	3	0.5	38.4	90.0	3 93,01
22.000	0,375	API-	5L 65000	HFW	1.00	5		3	0.5	32.4	76.1	8 78.70
24.000	0.375	MSS-SI	9.75 60000	24x22 Reducer		1 ea		3	0.5	38.4	90.0	3 93.01
22,000	0.375	MSS-SI	P-75 60000	24x22 Reducer	*	۸		3	0.5	35.1	82.5	2 85.26
					wjajstanija izvoja mora							
***************************************		***************************************			***************************************		na no managamento					****
A11 57441.	L	dod in	the test (exc	ent throne liet	id ahai	(a) are the	L	wali thickn	acc and are	do se tho n	ina 🔯	
-	maniferent international contraction of the contrac	io in management di management	Accessory of the second se	gnature of pe			****	Name of the second seco				
Compo	nent(s) i	imiting	test pressur	e/Control Poi	nt exce	ptions						
Test S	pecifica	tions	(include a spik	e test when tes	ting exi	sting faciliti	8 <b>8</b> )					
Test Fac	tor <u>1.5</u>	[1A]	Min. Test Pres	sure at Max. E	lev. <u>168</u>	8 PSIG	[18]	Max. Test P	ressure at M	in. Elev. <u>174</u>	<u> P</u> SIG	
Spike T	est	[1C]	Spike Factor				[10]	Spike Pres	sure at Max.	Elev. Box [1A]	x[1C]=_	PSIG
(comple for spike		[1E]	Spike Pressui	e at Min. Elev.		_ PSIG	[1F]		Spike Pressu 95 =	the part of the second	ıv.	
Test M	edium to	be Us	ed <u>WATER</u>	Minimum T	est Dui	ration <u>8.</u> (	<u>)</u> Hou	*3 *5	nder 30% SM 0% SMYS and re-installation pike Test: 30	d over: 8 hour Test: Refer to	s minimum A-34, Atta	achment A
Signal	ures			<b>.</b>								
Prepar	ed by (si	gnatur	e) Redacted		- 1	rint Name a	and Pl	none Numb		Date 8/8/2013		LAN ID Redact
Approv	red by /s Redac	i <del>coatu</del> ted				rint Name Redacted				Date 8/12/	MOIS.	LAN ID Redacted
Test Si	 upervised	d by (s	ignature)		Т	ime and Da	ate Te	st Pressure	Time an	d Date Test	-	Duration of
					R	eached (fro	ım Part	2)	Ended (f	rom Part 2)	Test (f	rom Part 2)



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

Sheet 2 of 2

Test Number <u>1</u> of <u>5</u> STPR Revision Number <u>02</u>

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

Test Elevation											
	Max.	Elevation l	in Tesi	Section		Min. E	levation in Test Secti	onFT			
Elevation at Test Point FT	[2A]	Static Hea	ıd b/t T	est Point and M	ax. Elev. PSIG	[28]	Static Head b/t Test	Point and Min. Elev PSIG			
No Spike Test: Calc	ulatio	ns and Te	st Re	suits (complete f	or strength test with	out a sp	ike test)				
Min. Required Test Press				and the second s		Pressu	re Range During Test	PSIG			
Box [1A] + Box [2A] =		73IG	DOX	B) – Box [2B] =	raile						
[2C] Min. Test Pressure		ited PSIG	[20]	Max. Test Pressu	ure Indicated PSIG						
Calculated Min. Test Pre Box [2C] – Box [2A] =				lated Max. Test Pr D] + Box [2B] =	essure at Min. Elev. PSIG						
Spike Test: Calcula	tions	and Test F	Result	S (complete for s	trength test with a s	pike test					
Spike Pressure at Test P			***************************************		sure at Test Point	***************************************	ost-Spike Pressure at T	est Pressure Range			
Box [1E] - Box [2B] =		PSIG	Box [1	A] + Box [2A] =	PSIG	Point	1 Day (101 -	After Spike Test			
[2E] Spike Pressure Inc		PSIG	[2F]	Min. Test Pressu	ire Indicated PSIG	Box [1F] - Box [2B] = PSIG PSIG PSIG PSIG PSIG PSIG PSIG PSIG					
***************************************		7.0									
Calculated Spike Pressu Box [2E] + Box [2B] =			100000000000000000000000000000000000000	lated Min. Test Pri F] – Box [2A] =	essure at Max. Elev. PSIG	Transferred	ated Max. Post-Spike Pr 6] + Box [2B] =				
Test Acceptance											
Were Leaks Observed? ☐ Yes ☐ No					If yes, explain:	***************************************					
Acceptable Strength  Yes No Report strength test failure		gulatory Com	noliance		If no, explain:						
	elektri in perior etropic toli procipi	nest entergraphism plant tapparter entarpropriet experience	one-specially promised	ssure Reached	Time and Date To	est End	ed Actual Duratio	n of Test			
Test Instruments											
Make, Range, and Ser	ial No	. of Pressu	re Rec	ording Device			Date Last Cali	brated			
Make, Range and Serial No. of Dead Weight Tester A dead weight tester and/or an electronic pressure recorder is require or greater than 90% of SMYS.					or tests of any pipe sec	gment eq	Date Last Cali	brated			
Signatures											
Test Supervised by (signature) Print Name							Date	LANID			
Testing Contractor (if	third	party)									
Approved by (signatu	ıre)			Print Name			Date	LANID			
Attachments					Distribution		**************************************				
Test chart     Schematic piping sketch				<ul> <li>Gas Job Clo</li> <li>Z1, San Ra</li> </ul>	and the second second	Desk, 6121 Bollinger C A 94583	anyon Road, Building				



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

Sheet 1 of 2

Test Number <u>2</u> of <u>5</u> STPR Revision Number <u>02</u>

Test D	escripti	on											
Line No	ımber oı	Statio	n Name L-1	14			Divi	sion/	District (	Diablo	Job Nu	mber 30	943472
Purpos	e of Tes	t: Tes	t new installa	ition			MAC	)P to	be Estab	lished by I	this Test 2	<u>20</u> PSIG	
Test 36	317' new	ly inst		nclude reference 14 from MP 1						, EB-59.			netro continue de la
				)			If no	spik	e test for	existing fa	acility, exp	lain:	
Static	Head C	alcula	lion										
	ım Eleva		MORROW .	<b>T</b>			For	Wate	r 10 (Elev	. Diff.) x 0.	433 = <u>5</u> PS	ilG	
	m Eleva on Differ			<b>T</b>					r Test Me e responsib		for guidance	on comple	eting this field.
maring a sale-layer amount of the	be Tes	ted		-		_	-						
Si		API		Long Seam	JF	Footage	Act	1000	Location	Most		% of SN	
OD (in.)	(in.)	AST Spe	the state of the s	(ERW, DSAW, SMLS etc.)	(E)	to be Tested	Foot	age	Class	Restrictiv Design Factor	MAOP	At Mil Test Press	Test
24.000	0.375	API-	5L 60000	SAWL	1.00	3617		out of the second of the secon	3	0.5	38.40	90.03	3 93.01
22 000	0.375	API-	5L 65000	HFW	1.00	5			3	0.5	32.49	76.1	3 78.70
24.000	0.375	MSS-SI	<sup>2-75</sup> 60000	24x22 Reducer	*	1 ea			3	0.5	38.40	90.03	3 93.01
22.000	0.375	MSS-SI	2-75 60000	24x22 Reducer		A someone control of the someone someo				0.5	35.19	82.5	2 85.26
Pipe sp	ecs veri	fied in	field □ S	ept those liste ignature of pe	rson s	upervising	majespojonjonijojenojone	wall	thickness	and grad	e as the pi	pe 🗵	
Test S	pecifica	itions	(include a spi	ce test when tes	ting exi	sting faciliti	es)						
Test Fac	tor <u>1.5</u>	[1A]	Min. Test Pre	ssure at Max. E	lev. <u>168</u>	8 PSIG	[18]	Max	. Test Pres	sure at Min	. Elev. <u>1744</u>	PSIG	
Spike T (comple	te only	(1E)	Spike Factor Spike Pressu	re at Min. Elev.		PSIG	[1D] [1F]	Max	. Post-Spik	e Pressure	ev. Box [1A] : at Min. Elev		PSIG
for spike		be Us	ed WATER	Minimum T	est Du	ration <u>8.</u>	O Hou	L	■ Unde ■ 30% ■ Pre-ii	SMYS and on the stallation To	PSIG S: 1 hour min over: 8 hours est: Refer to inutes minim	minimum A-34, Atta	chment A
Signal	ures			1									
*******	ed by (si	gnatur	e) Redacte	d		rint Name	and P	hone	Number		Date 8/8/2013		LAN ID Redact
Approv	<b>/ed</b> Redad	ited			P	rint Name edacted					Date 8/12/8	013	LAN ID Redacted
Test S	upervise	d by (s	/gnature)		1 1	ime and Da leached (fro	de la ser en en la company			Time and Ended (fro	Date Test	Actual	Duration of om Part 2)



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

Sheet 2 of 2

Test Number 2 of 5 STPR Revision Number 02

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

Test Elevation								
Elevation at	Max.	Elevation	in Tes	t Section	FT	Min. E	levation in Test Section	<b> FT</b>
Test Point FT	[2A]	Static Hea	ad b/t 1	rest Point and N	fax. Elev. PSIG	[28]	Static Head b/t Test Po	oint and Min. Elev PSIG
No Spike Test: Calc	ulatio	ns and Te	st Re	Sults (complete	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		ited PSIG	[2D]	Max. Test Press	ure IndicatedPSIG			
Calculated Min. Test Pres Box [2C] – Box [2A] =				lated Max. Test Pi (D] + Box (2B) =	ressure at Min. Elev. PSIG			
Spike Test: Calculat	lons	and Test I	Result	S (complete for s	trength test with a s	i oike test		
Spike Pressure at Test Po Box [1E] – Box [2B] =		siG		Required Test Pres A] + Box [2A] =	ssure at Test Point PSIG	Point	ost-Spike Pressure at Test - Box [2B] = PSI	After Spike Test
[2E] Spike Pressure Ind		PSIG .	[2F]	Min. Test Pressu	ure Indicated PSIG	[26]	Max. Post-Spike Test Pre	namen and the second control of the second c
Calculated Spike Pressur Box [2E] + Box [2B] =				est Pressure at Max. Elev. Calculated Max. Post-Spike Pressure at Min.    = PSIG				
Test Acceptance	in the second							
Were Leaks Observed ☐ Yes ☐ No	?				If yes, explain:			and the second s
Acceptable Strength T  Yes No  Report strength test failure		gulatory Con	npliance		If no, explain:			
				ssure Reached	Time and Date To	est End	ed Actual Duration o	of Test
Test Instruments								
Make, Range, and Seri	al No.	of Pressu	re Rec	ording Device			Date Last Calibra	ted
Make, Range and Seria A dead weight tester and/o or greater than 90% of SM	r an ele				or tests of any pipe seg	yment eq	Date Last Calibra	ted
Signatures								
Test Supervised by (si	gnatu	re)		Print Name			Date	LANID
Testing Contractor (if	third p	party)						
		Section 200						

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



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>3</u> of <u>5</u> STPR Revision Number <u>02</u>

Test D	escripti	on	The state of the s											
Line Nu	ımber or	Statio	n Nan	ne L-11	4			Divi	sion/D	istrict D	iablo	Job Nu	mber 309	43472
Purpos	e of Tes	t: Tes	t new	installa	tion			MAC	P to b	e Establi	shed by t	his Test 7	<u>'20</u> PSIG	
		1.5			clude reference 14 from MP 1						Drawing 3	0943472,	sheets 1	0 – 13.
A COLOR					☐ Existing s ☐ No (expla			If no	spike	test for (	existing fa	cility, exp	lain:	
Static	Head C	alcula	tion	manuscript of the second section of the second seco										
Charles Control Control	ım Eleva		<u>93</u>	F				For	Water	<u>7</u> (Elev. [	)iff.) x 0.4	33 = <u>4</u> PSI	3	
	m Eleva on Differ		<u>86</u> 7	F	*.			1 .		Test Med		- ar anidance	on complet	ng this field.
Pine to	be Tes	ted	-					1 00110	actile i	responsible	, ongineer i		UII VOITIDIO	ng ma new
Siz	***************************************	API		SMYS	I ann Cana	JF	Ecotoro	Act	ual T	Location	Most		% of SM	/S
OD (in.)	WT (in.)	AST Spe	M	(psi)	Long Seam (ERW, DSAW, SMLS etc.)	(E)	Footage to be Tested	Foot		Class	Restrictiv Design Factor	e At MAOP	At Min.	At Max Test Press.
24 000	0.375	API-	5L	60000	SAWL	1.00	3377			3	0.5	38.40	90.03	93.01
24.000	0.500	API-	5L	60000	SAWL	1.00	29			3	0.5	28.80	67.52	69.76
22.000	0.375	API-	5L	65000	HFW	1.00	5			3	0.5	32.49	76.18	78.70
24.000	0.375	MSS-SF	9.75	60000	24x22 Reducer	****	1 ea	-		3	0.5	38 40	90.03	93.01
22.000	0.375	MSS-SI	2-75	60000	24x22 Reducer	*	Λ-			3	0.5	35,19	82 52	85.26
							MANAGEMENT CONTRACTOR	-						
								etrati į pienei joyne i mariojin				entral de la constitución de la	\	
MARKON CONTRACTOR OF THE PARTY	ecs veri		ina ini ini ini manani anda manani an		ept those liste gnature of pe	-		المرازوا ويويدا بالمراوي مخاويا	wan u	IICAIICSS				
Compo	nent(s) l	imiting	j test i	pressun	e/Control Poi	nt exce	ptions							
Test S	pecifica	tions	(includ	de a spik	e test when tes	ting exis	ting facilitie	es)						***************************************
Test Fac	tor <u>1.5</u>	[1A]	Min.	Test Pres	sure at Max. E	lev. <u>168</u> 8	PSIG	[18]	Max. 1	Test Press	ure at Min.	Elev. <u>1744</u>	PSIG	
Spike T	est	[10]	Spike	e Factor				[10]	Spike	Pressure	at Max. Ele	v. Box [1A] >	([1C] =	PSIG
(comple		[1E]	Spike	Pressur	e at Min. Elev.		_ PSIG	[1F]		Post-Spike		at Min. Elev PSIG		
Test Me	edium to	be Us	ed <u>W</u>	ATER	Minimum T	est Dur	ation <u>8.</u> (	<u>0</u> Hou		■ 30% S ■ Pre-in:	MYS and o	: 1 hour min ver: 8 hours st: Refer to nutes minim	minimum A-34, Attac	
Signat	ures													
Prepare	ed by (si	gnatur	e)	Redact	ed	- 1-	rint Name :	and Pl	none N	lumber		Date 8/8/2013	<u>F-</u>	LAN ID edacte
Approv	ed by (s	ionatu Redacte	re) ed				rint Name Redacted		audianeth (ego) y ar Aithean (eileith an ag			Date 당/1일/2	4 1 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	LAN ID Redacted
Test Su	ıpervise	d by (s	ignatu	ure)	- Incompanies and the second second		me and Da eached (fro		al properties a		Time and I	ate Test		Ouration of m Part 2)



**62-4921 (12/2012)**Use in Accordance with

Numbered Document A-34, A-37, and GO 112-E

Sheet 2 of 2

Test Number 3 of 5
STPR Revision Number 02

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

Test Elevation									
Elevation at	Max.	Elevation i	in Tesi	t Section		Min. E	levation in Test Section	Statement of the statem	
Test Point FT	[2A]	Static Hea	id b/t 1	est Point and N	lax. Elev. PSIG	[2B]	Static Head b/t Test Po	int and Min. Elev PSIG	
No Spike Test: Calc	ulatio	ns and Te	st Re	Sults (complete	for strength test with	out a sp	lke 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 Press	ure IndicatedPSIG				
Calculated Min. Test Pres Box [2C] – Box [2A] =				lated Max. Test Pi D] + Box [2B] =	ressure at Min. Elev. PSIG				
Spike Test: Calculat	ions	and Test F	Result	S (complete for s	trength test with a s	pike test	)		
Spike Pressure at Test P Box [1E] – Box [2B] =		SIG	1	Required Test Pres A] + Box [2A] =	ssure at Test Point PSIG	Point	ost-Spike Pressure at Test	After Spike Tes	
[2E] Spike Pressure Inc		*\$16	[2F]	Min. Test Pressu	ure Indicated PSIG	[2G]	Max. Post-Spike Test Pre	ssure Indicated PSIG	
Calculated Spike Pressu Box [2E] + Box [2B] =				est Pressure at Max. Elev. Calculated Max. Post-Spike Pressure at Mi ] = PSIG Box [2G] + Box [2B] = PSIG					
Test Acceptance	***************************************								
Were Leaks Observed ☐ Yes ☐ No	?				If yes, explain:				
Acceptable Strength 1  Yes No  Report strength test failure		gulatory Com	npliance		If no, explain:				
Test Medium Used	ime a	nd Date Te	st Pre:	ssure Reached	Time and Date To	est End	ed Actual Duration o	of Test	
Test Instruments			description (description) (description)						
Make, Range, and Ser	ial No.	of Pressu	re Rec	ording Device			Date Last Calibra	ted	
Make, Range and Seri A dead weight tester and/o or greater than 90% of SM	or an ele	of Dead We ectronic press	e <b>ight 1</b> sure rec	<b>ester</b> order is required fo	or tests of any pipe se	gment eq	Date Last Calibra	ted	
Signatures									
Test Supervised by (s	ignatu	re)		Print Name			Date	LANID	
Testing Contractor (if third party)									
Approved by (signatu	re)		· degri innelliteritering	Print Name		-		LANID	
Attachments	March and Control of the Control of				Distribution				

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



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

Sheet 1 of 2

Test Number 4 of 5 STPR Revision Number 02

Test D	escripti	on											
Line N	umber or	Static	on Name L-1	4			Divi	sion/Di	strict	Diablo	Job Nu	ımber 30	943472
Purpos	e of Tes	t: Tes	t new installa	tion			MAG	OP to b	e Estab	lished by	this Test	7 <u>20</u> PSIG	
				nclude reference -114 from MF			-		the artists of the same	9. Drawin	g 3094347	2, sheet	s 14-25.
				Existing			If no	spike	test for	existing	facility, exp	lain:	
Static	Head Ci	alcula	tion				1						
Minimu	um Eleva ım Eleva on Differ	tion	153 F 89 F 64 F				For	Other 1	Test Me	dium	.433 = <u>28</u> F		ting this field.
Pipe to	be Tes	ted					Con	act the r	esponsic	ve engineer	ior guidance	on compie	ung mis neid
Si	***************************************	API	or SMYS	Long Seam	JF	Footage	Act	ual	Location	Most		% of SN	IYS
OD (in.)	WT (in.)	AST Spe		(ERW, DSAW, SMLS etc.)	(E)	to be Tested	Fool	1 1	Class	Restrict Design Facto	ve At 1 MAOF	At Mir Test Press	Test
24.000	0.375	API-	5L 60000	SAWL	1.00	10,989			3	0.5	38.40	90.03	93.01
24.000	0.500	API-	5L 60000	SAWL	1.00	55			3	0.5	28.80	67.52	69.76
		***************************************		· · · · · · · · · · · · · · · · · · ·			-				minatoria de la libera de la companya del companya del companya de la companya de		
								pper la company de la comp	The state of the s				
		**************************************				-				***************************************			
						•	-						***************************************
Pipe sp	ecs veri	fied in	field □ Si	ept those liste gnature of pe e/Control Poi	rson si	upervising		wall th	ickness	and grad	e as the pi	pe ⊠	
Test S	pecifica	tions	(include a spik	e tost when tes	tina exi	sting faciliti	as)						grigory programme and the second
Test Fac		[1A]		ssure at Max. E	**************	***************************************	[18]	Max. T	est Pres	sure at Mir	ı. Elev. <u>1744</u>	PSIG	
Spike T	est	[10]	Spike Factor				[1D]	Spike	Pressure	e at Max. E	ev. Box [1A] :	x [1C] =	PSIG
(comple for spike	te only	(1E)	Spike Pressu	re at Min. Elev.		_ PSIG	[1F]		ost-Spil ≘] x 0.95		at Min. Elev	•	
Test M	edium to	be Us	ed <u>WATER</u>	Minimum T	est Dui	ration 8.0	) Hou		* 30% * Pre-i	SMYS and nstallation T	S: 1 hour mir over: 8 hours est: Refer to inutes minim	minimum A-34, Attac	
Signat	ures			Acceptance of the second	<u> </u>								*
Prepare	ed by (si	gnatur	e) Reda	cted	P	rint Name	and Pl	none N	umber		Date		LAN ID
		(6)(6)(8)(6)(9)(9)(9)(9)(8)(10)(10)(10)(10)(10)(10)(10)(10)(10)(10		- WARRY 12-11	R	edacted	990-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-				8/8/2013		Redacte
Approv	ed by (s Reda	icted	ra)			rint Name Redacted			<u> </u>		Date 8/12/2	013	Redacte
Test Si	ıpervised	d by (s	ignature)	I menunchi mid dimense ngangkan kenjambahan		ime and Da eached (fro		and a second of a		Time and Ended (fro	Date Test m Part 2)		Duration of om Part 2)



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

Sheet 2 of 2

Test Number 4 of 5 STPR Revision Number 02

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

Elovation of	Max.	Elevation	in Tes	t Section	FT	Min. E	levation in Test Section	FT
Elevation at Test Point FT	[2A]	Static Hea	d b/t 1	est Point and N	lax. Elev. PSIG	[28]	Static Head b/t Test Po	oint and Min. Elev
No Spike Test: Calc	ulatio	ns and Te	st Re	Sults (complete :	or strength test with	out a sp	ike test)	
Min. Required Test Press Box [1A] + Box [2A] =			1	Allowable Test Pre B) – Box (2B) =		Pressu	re Range During Test	PSIG
[2C] Min. Test Pressure	eramakana Maria	ted PSIG	[2D]	Max. Test Press	ure Indicated PSIG			
Calculated Min. Test Pres Box [2C] - Box [2A] =			1	lated Max. Test Pr D] + Box [2B] =	ressure at Min. Elev. PSIG			
Spike Test: Calculat	ions a	ınd Test F	Cesult	S (complete for s	trength test with a sp	i olke test		
Spike Pressure at Test P Box [1E] – Box [2B] =		SIG		Required Test Pres A] + Box [2A] =	ssure at Test Point PSIG	Point	ost-Spike Pressure at Test	After Spike Tes
[2E] Spike Pressure Inc		sig	[2F]	Min. Test Pressu	re Indicated PSIG		Max. Post-Spike Test Pre	
Box [2E] + Box [2B] =PSIG Box [2F] - Box [2A]					essure at Max. Elev. PSIG	€ 1 12 11	ated Max. Post-Spike Press G] + Box [28] = PS	
Test Acceptance			•			L		
Were Leaks Observed ☐ Yes ☐ No	?				If yes, explain:			
Acceptable Strength T  Yes No  Report strength test failure		julatory Com	pliance		If no, explain:			
Test Medium Used T	ime ar	nd Date Te	st Pres	ssure Reached	Time and Date Te	est End	ed Actual Duration of	of Test
Test instruments								
Make, Range, and Seri	al No.	of Pressur	e Rec	ording Device			Date Last Calibra	ted
Make, Range and Seria A dead weight tester and/o or greater than 90% of SM	r an ele				r tests of any pipe seg	ment eq	Date Last Calibra	ted
Signatures								
Test Supervised by (si	gnatur	(*)		Print Name			Date	LANID
Testing Contractor (if	third p	arty)	olonia, denimenti suo Kerto	kulides se de principe proposition proposition de proposition de seus de consecutaristica de la seu de consecutaristica de la seus de consecutaristica de la seus de consecutaristica de la seus de la				
Approved by (signatur	'e)			Print Name			Date	LANID

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



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Sheet <u>1</u> of <u>3</u> Test Number <u>5</u> of <u>5</u>

STPR Revision Number 02

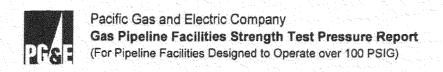
Test D	escripti	on											
Line N	umber or	Statio	n Name L-1	14		***************************************	Divis	ion/Distr	ict I	Diablo	Job Nu	ımber 3	0943472
Purpos	se of Tes	t: Tes	t new installa	ation	iiiii ahii ii jamisi asis		MAC	P to be E	stab	lished by	this Test	720 <b>PSI</b>	
a intermediane maiore and	***************************************			nclude reference	a drawine	is field static	_		***********				
Test no	ewly inst	alled N	/ILV-13.05 o	n L-108 at Red d). See draw	edacted	and 23	31' of n	iew 8" lir	ne fro		3.05 to ex	disting L	-316
				)			If no	spike tes	t for	existing f	acility, exp	ılain:	
Static	Head C	alcula	tion										
	um Eleva		'uliminate.	7			For \	Water 3 (I	Elev.	Diff.) x 0.	433 = <u>2</u> PS	IG	
	ım Eleva on Differ		100000					Other Tes			for guidance	on comp	leting this field
Pipe to	be Tes	ited											
Si		API	eren er en 📲 er er fjeren en fanske	Long Seam	JF	Footage	Actu	ial Loc	ation	Most	***************************************	% of S	MYS
OD (in.)	WT (in.)	AST Spe		(ERW, DSAW, SMLS etc.)	(E)	to be Tested	Foota	ige Cl	ass	Restriction Design Factor	MAOP	At M Tes Pres	st Test
24.000	0.375	API-	5L 60000	SAWL	1.00	82			3	0.5	38.40	57 6	60.00
8.625	0.322	API-	5L 35000	SMLS	1.00	260			3	0.5	27.55	41.3	33 43.05
6.625	0.280	API-	5L 35000	SMLS	1.00	88			3	0.5	24.34	36.8	38.03
24.000	0.375	MSS-SF	P-75 60000	24x24x6 Tee	+	2 ea			3	0.5	38 40	57.6	60.00
6.625	0.280	MSS-SF	-75 60000	24x24x6 Tee		٨			3	0.5	14.20	21.2	29 22.18
24.000	0.375	MSS-SF	60000	24x24x8 Tee		2 ea			3	0.5	38.40	57.6	60.00
8.625	0.322	MSS-SF	P-75 60000	24x24x8 Tee		۸			3	0.5	16.07	24.1	11 25.11
All fitti	ngs inclu	ided in	the test (exc	ept those list	ed abov	ve) are the	same \	wall thick	ness	and grad	e as the pi	ре 🛛	
Pipe sp	ecs veri	fied in	field □ S	gnature of pe	rson sı	upervising	test						
Compo	nent(s) l	imiting	test pressu	re/Control Poi	nt exce	ptions	Valves	Marine Construction of the	The control of war produc				obrotovijeve v k nejektovničevije je iz in pjecajuć oji povadovajava
Test S	pecifica	tions	(include a spil	e test when tes	iting exi	sting faciliti	es)					Principle Control of C	
est Fac	tor <u>1.5</u>	[1A]	Min. Test Pre	ssure at Max. E	lev. <u>108</u>	0 PSIG	[18]	Max. Test	Pres	sure at Min	. Elev. <u>1125</u>	PSIG	
Spike T	est	[10]	Spike Factor	***************************************		***************************************	[1D]	Spike Pres	ssure	at Max. Ele	ov. Box [1A] )	([1C] = _	PSI(
comple or spike		[1E]	Spike Pressu	re at Min. Elev.		PSIG	(1F)	A STATE OF STATE	· · · · · · · · · · · · · · · · · · ·	e Pressure =	at Min. Elev PSIG		
Test M	edium to	be Us	ed <u>WATER</u>	Minimum T	est Dui	ration 8.0	) Hour	s .	30% : Pre-ir	SMYS and on stallation To	S: 1 hour min over: 8 hours est: Refer to nutes minim	minimum A-34, Atta	achment A
Signat	ures												
Prepar	ed by (si	gnatur	Redacted			rint Name a	and Ph	one Num	ber		Date 8/8/2013		LAN ID Redacte
Approv	ed by (s	ignatu	re)		Р	rint Name			one males and a		Date		LANID
and the	Redact					dacted				11 . 1	8/12/12	013	Redacted
Test Su	 upervised	d by (s	ignature)	manus de consi		ime and Da eached (fro	4000			Time and I	Date Test	Actua	Duration o
		in the second				The second se	Activities of the second						The second secon



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Sheet 2 of 3 Test Number 5 of 5 STPR Revision Number 02

Test D	escripti	on										
Line N	ımber or	Static	n Name L-11	4			Division	n/District	Diablo	Job Nu	mber 30	943472
Purpos	e of Tes	t: Tes	t new installa	tion			MAOP	o be Esta	blished by t	nis Test 7	<u>'20</u> PSIG	Modificial contraction and comment of the contraction of the contracti
Test no	ewly inst	alled I	e <b>ing Tested</b> (in MLV-13.05 or ty, Brentwood	L-108 at Re	dacted	and 23	31' of new	8" line fi	rom MLV-1 8.	3.05 to ex	isting L-3	16
Will sp	ike test b	e perf	ike test required) ormed?				If no sp	ike test fo	r existing fa	cility, exp	lain:	
	Head Ca		THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER, THE OW							Name and other sections and the section of	MANAGEM COMPANIES CO	tage algorithm to the state of
and the same of the same of	ım Eleva ım Eleva		95 F 92 F						. Diff.) x 0.4	33 = <u>2</u> PSI	3	***************************************
Elevati	on Differ	ence	<u> </u>	*				er Test Me he responsi	edium ble engineer f	or guidance	on complet	ing this field
Pipe K	) be Tes	*******						1			0/ -4 508	
OD (in.)	WT (in.)	API AST Spe	M (psi)	Long Seam (ERW, DSAW, SMLS etc.)	JF (E)	Footage to be Tested	Actual Footage	Location Class	n Most Restrictiv Design Factor	At MAOP	% of SM At Min. Test Press.	At Max Test Press
16 000	0.375	API-	5L 35000	SMLS	1.00	10		3	0.5	43.89	65.83	68.57
16.000	0.312	API-	5L 52000	HFW	1.00	51		3	0.5	35.50	53.25	55.47
1.050	0.154	APL	5L 35000	SMLS	1.00	60			0.5	7.01	10.52	10.96
Pipe sp	ecs veri	fied in	the test (exci	gnature of pe	rson si	pervising	test	I thicknes	s and grade	as the pli		
Test S	pecifica	tions	(include a spik	test when tes	ting exi	sting faciliti	95)					
Test Fac	tor <u>1.5</u>	[1A]	Min. Test Pres	sure at Max. E	lev. <u>108</u>	0 PSIG	[18] Ma	x. Test Pre	ssure at Min.	Elev. <u>1125</u>	PSIG	1900-1900-1900-1900-1900-1900-1900-1900
Spike T	est	[10]	Spike Factor		<u></u>	***************************************	[1D] Sp	ike Pressul	e at Max. Ele	v. Box [1A] x	[1C] =	PSIG
(comple for spike		(1E)	Spike Pressur	e at Min. Elev.	*************	_ PSIG		x. Post-Spi x [1E] x 0.95	ke Pressure :	it Min. Elev PSIG	Note the second	(All Deligible for the processing and the second an
Test Mo	dium to	be Us	ed <u>WATER</u>	Minimum T	est Dur	ation <u>8.</u> (	) Hours	= 30% = Pre-	er 30% SMYS SMYS and or installation Te te Test: 30 mir	ver: 8 hours st: Refer to v	minimum A-34, Attacl	
Signat	ures				<u> </u>							
Prepare	ed by (si	gnatur	e) Redac	ted	1.	rint Name dacted	and Phon	e Number		Date 3/8/2013		<b>LAN ID</b> Redacte
Approv	ed by (si	gnatu	edacted			rint Name edacted				) 		LAN ID Redacted
Test Su	ipervised	i by (s	ignature)			me and Da eached (fro		ressure	Time and D Ended (from	ate Tést		Ouration of in Part 2)



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Test Number <u>5</u> of <u>5</u> STPR Revision Number <u>02</u>

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

Test Elevation										
Elevation at	Max.	Elevation	in Tes	t Section	ET	Min. E	levati	ion in Test Section	FT	
Test Point FT	[2A]	Static Hea	nd b/t 1	Test Point and M	lax. Elev. PSIG	[28]	Stat	ic Head b/t Test Poi	nt and Min. Elev. PSIG	
No Spike Test: Calc	ulatio	ns and Te	st Re	Suits (complete (	for strength test with	out a sp	ike te	91)		
Min. Required Test Press Box [1A] + Box [2A] =			1	Allowable Test Pro B] – Box [2B] =	essure at Test Point PSIG	Pressu	ire Rai	nge During Test	PSIG	
[2C] Min. Test Pressure	a armanesa a	ited PSIG	[20]	Max. Test Press	ure Indicated PSIG					
Calculated Min. Test Pre- Box [2C] - Box [2A] =	and the fact of the com-			lated Max. Test Pr	ressure at Min. Elev. PSIG					
Spike Test: Calcula	tions	and Test I	Result	S (complete for s	trength test with a s	pike test	)			
Spike Pressure at Test P Box [1E] – Box [2B] =		'SIG	1	Required Test Pres A) + Box (2A) =	ssure at Test Point PSIG	Point		oike Pressure at Test  × [28] =PSIG	After Spike Test	
[2E] Spike Pressure Inc		PSIG	[2F]	Min. Test Pressu	ure Indicated PSIG	[2G] Max. Post-Spike Test Pressure Indica			Bure Indicated PSIG	
3ox [2E] + Box [2B] =PSIG					essure at Max. Elev. PSIG	A	an planted of	lax. Post-Spike Pressu ox [2B] =PSi		
Test Acceptance										
Were Leaks Observed ☐ Yes ☐ No	?				If yes, explain:					
Acceptable Strength 7  Yes No Report strength test failure		gulatory Con	1pliance		If no, explain:					
Test Medium Used	Γime a	nd Date Te	st Pre	ssure Reached	Time and Date To	est End	ed	Actual Duration of		
Test Instruments			*****		and the second s	i communication and control			***************************************	
Make, Range, and Ser	ial No.	of Pressu	re Rec	ording Device	And Conference and Co			Date Last Calibrate		
Make, Range and Seri A dead weight tester and/o or greater than 90% of SM	or an ele				or tests of any pipe seç	yment ec	jual to	Date Last Calibrate	ed	
Signatures										
Test Supervised by (s	ignatu	TC .		Print Name				Date	LANID	
Testing Contractor (if third party)										
pproved by (signature) Print Name				Print Name	e Date LANID				LANID	

#### Attachments

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

#### Distribution