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SUMMARY AND ASSESSMENT OF EOC - RE-INSPECTION PERFORMED ON GIRTH WELDS

In accordance with the approved PG&E Inspection Test Plan (ITP), on November 13 & 15, 2013 a re-inspection utilizing radiographic examination was performed on five (5) girth welds on the WV-132-13 project in Milpitas, CA. Once each of the welds were re-radiographed they were "fingerprinted" (weld features compared against original images to verify that the original radiographic film images of the weld matched the images of the re-inspected girth weld.

The following weld numbers were re-inspected:

Original Weld Id Number	Reinspection Weld Id Number
W-31	W-31-RI
W-32	W-32-RI
W-33	W-33-RI
TI-9	TI-9-RI
TI-10	TI-10-RI

The following were the results of these-inspections:

Weld Number: W-31-RI Comments: Weld matched fingerprint and weld was determined to be acceptable to API 1104, 20th edition.

Weld Number: W-32-RI Comments: Weld matched fingerprint and weld was determined to be acceptable to API 1104, 20th edition.

Weld Number: W-33-RI Comments: Weld matched fingerprint and weld was determined to be acceptable to API 1104, 20th edition.

Weld Number: TI-9-RI Comments: Weld ***did not*** match fingerprint. However, after performing further investigation it was ultimately determined that this weld was originally identified as weld number W-34 which was acceptable as originally radiographed. Its fingerprint was matched and the weld was

determined to be acceptable to API 1104, 20th edition. On November 15th the next weld down from weld number W-34 was re-radiographed and this weld matched the fingerprint for the original weld number identified as TI-9 and the weld was determined to be acceptable to API 1104, 20th edition.

Weld Number: TI-10-RI Comments: Weld matched fingerprint and weld was determined to be acceptable to API 1104, 20th edition.

Upon a detailed review of the pipeline alignment sheets, PG&E was able to determine that the original weld number TI-9 was actually one weld joint east of the location for weld number W-34. On November 15, 2013 the field site was further excavated to locate the actual location for weld number TI-9 and the weld was re-radiographed, the fingerprint matched that of the original film images for TI-9, was evaluated and determined to be acceptable to API 1104, 20th edition.

Copies of WIX's Radiographic Testing Inspection reports indicating the results of their evaluation of welds examined are attached.

This summary completes the evaluation and documentation of the re-inspections performed on the five (5) identified girth welds on the WV-132-13 project in Milpitas, CA.

Respectfully submitted,

Redacted

President
ASNT/ACCP Professional Level III – 2820

Western Industrial X-Ray, Inc.
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Date 12/13/2013 Page 1 Of 1
Radiographic Report or Control # RIG-D
Customer PGE
Address
Customer's P.O. Number 2500904964
Job Location MILPITAS, CA LINE-132 RE-INSPECTION
Job Number 30677902/"41960097"
Item Description 20" GIRTH WELDS
100% Insp. ✓ Spot Insp. Percent

Nondestructive Inspection Report

Piece or Joint #s	Weld Number	Film No.	Acc	Rej	Defect Code	Comments
20"X.375/.500	TI-9-RI	3	✓		IUC	IUC@62.5"<2"IN 12"
20"X.375/.500	W-33-RI	3	✓			PROCESSING MARKS
						@24",29"
20X.375/.800	W-32-RI	3	✓			PROCESSING MARKS
						@56",24",29"
20X.375/.800	W-31-RI	3	✓			
20"X.375/.375	TI-10-RI	3	✓		ESI	ESI@9.25"-10"
					ESI	ESI@14-14.5"
					P	P@57"<3/32"

Work Summary

Amount	Description
4	Travel Hours
3	# Persons
0830	In Time
1530	Out Time
7	Work Hours
0	Standby Hours
11	Total Hours
NO	Per Diem
	# Persons
150	Mileage One Way ___ Round Trip ✓
5	Weld 20" in. dia.
	Weld in. dia.
	Weld in. dia.
	Weld in. dia.
	Weld in. dia.
	Weld in. dia.
15	Film 3.5" x 24" Type D-7
	Film x Type

Technique Date/Procedure Qualification

Inspection Specification API-1104
Acceptance Standard 20TH
RT Procedure No. RT-7 Shooting Sketch (RSSS) D
View: DWF SWV Source Ir192 Curies 87
Physical Source Size: .106X.126 Effective Focal Spot: .165
Pb Screens: Front .005 Center N/A Back .005

Dia. 20" Material Type: X60 Thickness: .375 Reinf: .125
SFD: 20.47 Source To Obj: 20.1 IQI Essential Wire: .013
Exp. Time: 1 min. 15 sec. Dev. Time: 6 @ 69 deg.
Film Manufacturer: Agfa Speed: D-7 No. of Exp. 3 Film 3
Geometric Unsharpness (Ug): .004 Avg. Density:

Dia. 20" Material Type: X60 Thickness: .375 Reinf: .125
SFD: 20.47 Source To Obj: 20.1 IQI Essential Wire: .013
Exp. Time: 1 min. 30 sec. Dev. Time: 6 @ 69 deg.
Film Manufacturer: Agfa Speed: D-7 No. of Exp. 3 Film 3
Geometric Unsharpness (Ug): .004 Avg. Density:

Dia. 20" Material Type: X60 Thickness: .375 Reinf: .125
SFD: 20.47 Source To Obj: 20.1 IQI Essential Wire: .013
Exp. Time: 1 min. 30 sec. Dev. Time: 6 @ 69 deg.
Film Manufacturer: Agfa Speed: D-7 No. of Exp. 3 Film 3
Geometric Unsharpness (Ug): .004 Avg. Density:

Defect Code

BT - Burn Through
C - Crack
CV - Root Concavity
CX - Root Convexity
ICP - Inadequate Cross Penetration
IF - Incomplete Fusion
IP - Incomplete Penetration
PD - Inadequate Penetration Due to High Low
P - Porosity
SL - Slag Lines
SI - Slag Inclusions
UC - Undercut
TI - Tungsten Inclusion

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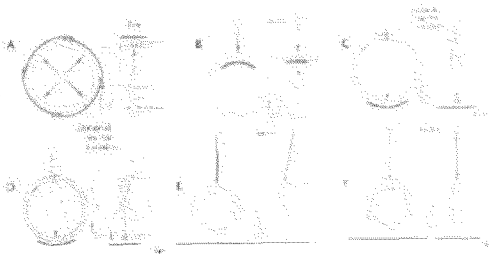
Level II

Level I



The person signing this document represents that they have the authority to sign on the behalf of the customer. This report does not guaranty or warranty the condition of the materials tested. Western Industrial X-Ray, Inc. is not liable for any interpretation of results or losses attributable to any testing performed. There is no warranty for these services. Any liability is limited to the amount paid for the

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Date 11/13/2013

Report Form WIX-101

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Date 11/15/2013 Page 1 Of 1
Radiographic Report or Control # RIG-D
Customer PGE
Address
Customer's P.O. Number: 2500904964
Job Location MILPITAS, CA LINE-132 RE-INSPECTION
Job Number 30677902/"41960097"
Item Description 20" GIRTH WELDS
100% Insp. ✓ Spot Insp. ____ Percent____

Nondestructive Inspection Report

Piece or Joint #s	Weld Number	Film No.	Acc.	Rej.	Defect Code	Comments
20"X.375/.375	TI-9-RI	3	✓		ESI	ESI@8"TO9"<2"IN12"
					IUC	IUC@1"<2"IN12"
20"X.375/.500	W-28-RI	1	✓			Reshot For Info Only

Work Summary

Amount	Description
4	Travel Hours
3	# Persons
1700	In Time
2100	Out Time
4	Work Hours
0	Standby Hours
8	Total Hours
NO	Per Diem
	# Persons
150	Mileage One Way ___ Round Trip ✓
2	Weld 20" in. dia.
	Weld ____ in. dia.
	Weld ____ in. dia.
	Weld ____ in. dia.
	Weld ____ in. dia.
	Weld ____ in. dia.
	Film ____ x ____ Type ____
	Film ____ x ____ Type ____

Technique Date/Procedure Qualification

Inspection Specification API-1104
Acceptance Standard 20TH
RT Procedure No. RT-7 Shooting Sketch (RSSS) D
View: FWF SWV Source Ir192 Curies 109
Physical Source Size: .106X.114 Effective Focal Spot: .156
Pb Screens: Front .005 Center N/A Back .005

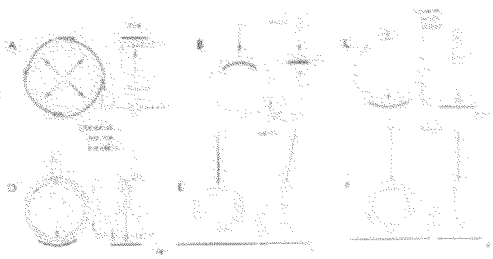
Dia. 20" Material Type: X60 Thickness: .375 Reinf: .125
SFD: 20.47 Source To Obj: 20.1 IQI Essential Wire: .013
Exp. Time: 1 min. 05 sec. Dev. Time: 6 @ 69 deg.
Film Manufacturer: Agfa Speed: D-7 No. of Exp. 3 Film 3
Geometric Unsharpness (Ug): .004 Avg. Density: 2.69

Dia. 20" Material Type: X60 Thickness: .375 Reinf: .125
SFD: 20.47 Source To Obj: 20.1 IQI Essential Wire: .013
Exp. Time: 1 min. 10 sec. Dev. Time: 6 @ 69 deg.
Film Manufacturer: Agfa Speed: D-7 No. of Exp. 3 Film 3
Geometric Unsharpness (Ug): .004 Avg. Density: 2.42

Dia. ____ Material Type: ____ Thickness: ____ Reinf: ____
SFD: ____ Source To Obj: ____ IQI Essential Wire: ____
Exp. Time: ____ min. ____ sec. Dev. Time: ____ @ ____ deg.
Film Manufacturer: ____ Speed: ____ No. of Exp. ____ Film ____
Geometric Unsharpness (Ug): ____ Avg. Density: ____

Defect Code

BT - Burn Through
C - Crack
CV - Root Concavity
CX - Root Convexity
ICP - Inadequate Cross Penetration
IF - Incomplete Fusion
IP - Incomplete Penetration
P(D) - Inadequate Penetration Due to High-Low
P - Porosity
SL - Slag Lines
SI - Slag Inclusions
UC - Undercut
TI - Tungsten Inclusion



D.T. Redacted
1. Level II
2. Level I

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Date 11/15/2013

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