

Form H: Direct Examination Data Sheet - Page 1 of 10

<u>DA/ILI</u> Route Number: _____	<u>DA</u> N-Segment: _____	<u>ILI</u> ILI Log Distance: _____
Examination Date: 11/13/2011	IMA Number: _____	RMP-11 Ref. Section: Table 5.6.2
Mile Point: _____	Region Number: _____	Reference Girth Weld: _____
Examination Performed By: <input checked="" type="checkbox"/> DA	Subregion # (ICDA): _____	Distance From Girth Weld: _____
PG&E Project Manager: _____	Stationing: _____	
Approved By: _____		
Order Number: _____		

Excavation Priority:

Immediate Scheduled (For ILI - 1 Year Other
 Monitor Effectiveness ICDA

Excavation Reason

ECDA ILI Recoat
 ICDA OtheMAOP Validation

If practical, take P/S or CIS reads before excavation:

Excavation Details: Centerline on GPS Coordinates (Based on GIS):

Northing: _____ Planned Inspection Length (Ft.): _____
 Easting: _____ Actual Inspection Length (Ft.): _____
 Centerline on GPS Coordinates (Uncorrected Field Measurement): GPS File Name: _____
 Northing: _____
 Easting: _____
 Centerline on GPS Coordinates (Corrected Field Measurement): Nominal Wall Thickness: _____
 Northing: _____ Nominal Pipe Diameter: _____
 Easting: _____

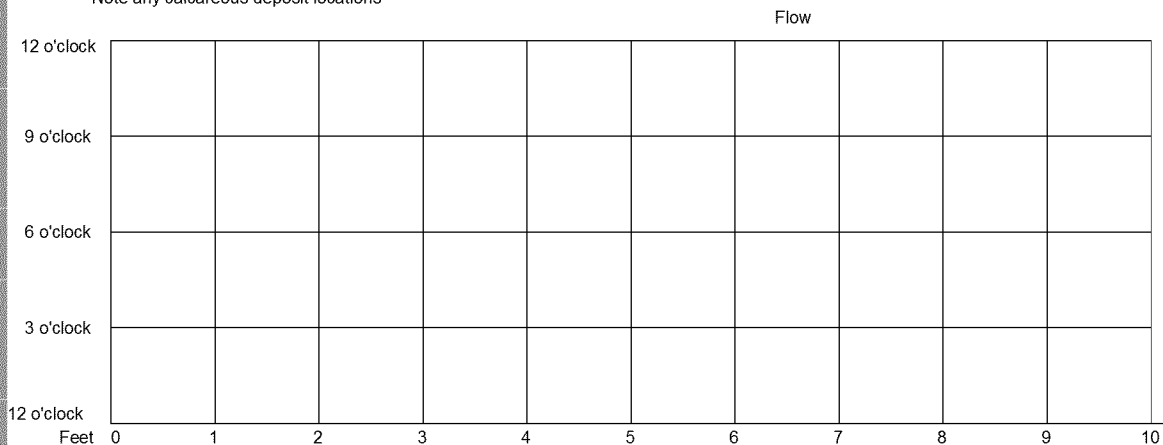
1.0 Data Before Coating Removal

1.1 Native Soil Type: Clay Rock Sand Slime Wet Other _____
1.1a Backfill Material Found Sand Slurry Other _____
 Comments: _____ Depth of Cover (Ft.): _____
1.2 Coating Type: HAA Somatic Plastic Tape Wax Tape FBE Powercrete
 Bare/None Paint Other: _____ Comments: Poor condition disbanded
 Coating Thickness (Inches): 1/8" Number of Layers: _____
1.3 Holiday Testing Performed?: Yes No Voltage Used: _____ Map Location of Holidays Below:
 Device Used: Coil Wet Sponge Comments: _____
1.4 Pipe-to-Soil Potentials in Ditch (-mV): Mag 1190 mv Mag 1190 mv
 Comments: _____
1.5 Soil Resistivity in Ditch (Ω-cm):
 Method: 4Pin _____ Soil Box 5300 ohms
1.6 Soil Sample Location: Comments: D/S end
1.7 Ground Water Present?: Yes No Sample(s) Collected?: Yes No Sample pH: _____
 Comments: _____
1.8 Coating Condition: Good - Adhered to Pipe Fair - Coating Partially Disbanded or Degraded
 Poor - Coating Significantly Disbanded or Missing
 Comment: Coating disbanded and falling off with soil removal 100% over exposed pipe.

1.9 Map of Coating Degradation*:

Zero Reference Point: edge of exposed pipe.

*Note any calcareous deposit locations



Form H: Direct Examination Data Sheet - Page 2 of 10

DA/ILI

DA

ILI

Route Number: _____

N-Segment: _____

ILI Log Distance: _____

Examination Date: 11/13/2011

IMA Number: _____

RMP-11 Ref. Section: Table 5.6.2

Mile Point: _____

Reference Girth Weld: _____

Examination Performed By: DJ

Region Number: _____

Distance From Girth Weld: _____

PG&E Project Manager: _____

Subregion # (ICDA): _____

Approved By: _____

Stationing: _____

Order Number: _____

1.10 Photos Taken?: Yes No
 *See Photo Log for additional information.

1.11 Coating Sample Taken?: Yes No Location of Sample: D/S end _____

1.12 Liquid Underneath Coating?: Yes No If Yes, pH of Liquid: _____

1.13 Corrosion Product Present?: Yes No If Yes, Was Sample Taken?: Yes No
 Comments: _____

1.14 Soil pH (Sb Electrode): Upstream: 6.5 Downstream: 6.5

2.0 Data After Coating Removal

2.1 Pipe Temperature (°F): _____ Measured Pipe Diameter (In.): _____

2.2 Weld Seam Type: DSAW SSAW RW SMLS
 Spiral Lap Flash AO Smith

2.3 Girth Weld Coordinates:
 Northing: _____
 Easting: _____
 Elevation: _____ LS Weld Clock Position: _____

2.4 Damage Found:
 Corrosion Damage? Yes No Mechanical Damage? Yes No
 Other Damage: _____

2.5 UT Wall Thickness Measurements: TDC: 0.149" 1 O'clock: 0.149" 2 O'clock: 0.149" 3 O'clock: 0.149"
 4 O'clock: 0.149" 5 O'clock: 0.149" 6 O'clock: 0.149" 7 O'clock: 0.149"
 8 O'clock: 0.149" 9 O'clock: 0.149" 10 O'clock: 0.149" 11 O'clock: 0.149"

2.5a Nominal Wall Thickness: 0.148"

UT Wall Thickness Grid @ 6:00 is required. Be sure to attach grid to Form H electronically. See page 6 of 10.

2.6 Wet Fluorescent Mag. Part. Is Required. Comments: Two linear indications were noted please see MT report for locations.
 Were there any linear indications? Yes No If Yes, attach NDE report electronically as part of the Form H.
 Report to include black light and white light photos of indications.

2.7 Take Photos to Document Corrosion and Other Anomalies*
 *See Photo Log for additional information.

2.8 Overview Map of Corroded Area*
 *See Pit Depth Measurement Grid for additional Information Zero Reference Point: edge of exposed pipe.
 *Note any calcareous deposits.

Flow

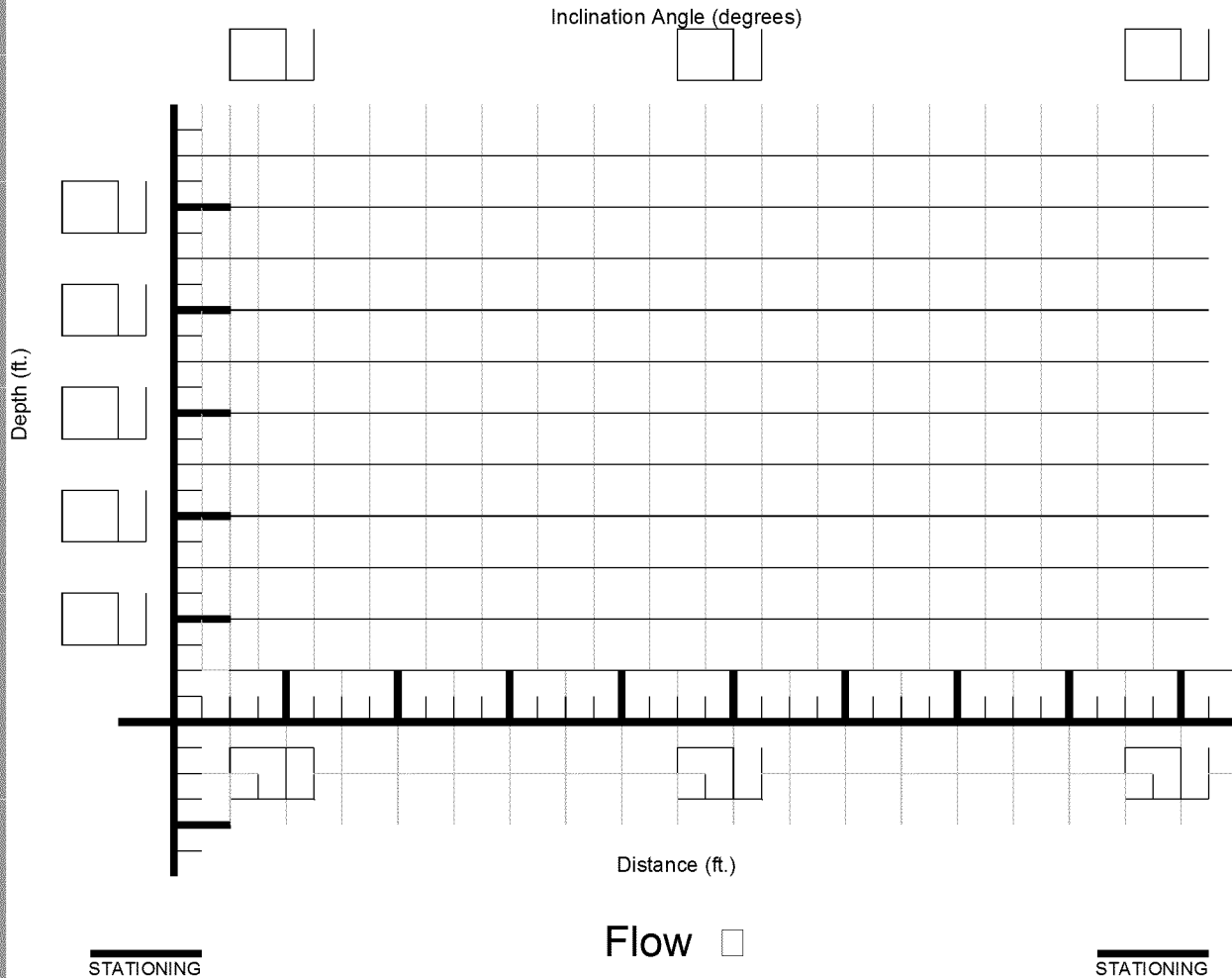
12 o'clock	1	7	13	19	25	31	37	43	49	55	
	2	8	14	20	26	32	38	44	50	56	
9 o'clock	3	9	15	21	27	33	39	45	51	57	
	4	10	16	22	28	34	40	46	52	58	
6 o'clock	5	11	17	23	29	35	41	47	53	59	
	6	12	18	24	30	36	42	48	54	60	
3 o'clock											
12 o'clock											
Feet	0	1	2	3	4	5	6	7	8	9	10

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<u>DA/ILI</u>	<u>DA</u>	<u>ILI</u>
Route Number: _____	N-Segment: _____	ILI Log Distance: _____
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Mile Point: _____	Region Number: _____	Reference Girth Weld: _____
Examination Performed By: <u>DJ</u>	Subregion # (ICDA): _____	Distance From Girth Weld: _____
PG&E Project Manager: _____	Stationing: _____	
Approved By: _____		
Order Number: _____		

Excavation Drawing:

At minimum draw pipe elevation profile and indicate stationing of 1) low point and 2) critical inclination angle. Place an arrow on the drawing indicating direction of gas flow in the region(s). Other labels may also be added (e.g. "to Station").



NOTES: (Record stationing and names of nearby landmarks such as creeks and roads. Provide any additional information that may help in spatially positioning pipe):

EXTERNAL PIT DEPTH MEASUREMENT GRID SHEETS

<u>DA/ILI</u>	<u>DA</u>	<u>ILI</u>
Route Number: _____	N-Segment: _____	ILI Log Distance: _____
Examination Date: 11/13/2011	IMA Number: _____	RMP-11 Ref. Section: Table 5.6.2
Mile Point: _____	_____	Reference Girth Weld: _____
Examination Performed By: dj	Region Number: _____	Distance From Girth Weld: _____
PG&E Project Manager: _____	Subregion # (ICDA): _____	
Approved By: _____	Stationing: _____	
Order Number: _____		

Grid Size = _____ Inch x _____ Inch (specify grid size)
 Clock Position (specify below)

Anomaly #: _____ Grid #: _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
A																						
B																						
C																						
D																						
E																						
F																						
G																						
H																						
I																						
J																						
K																						
L																						
M																						
N																						
O																						
P																						
Q																						
R																						
S																						
T																						
U																						
V																						
W																						
X																						

PIT DEPTH GRID 1 OF 2

EXTERNAL PIT DEPTH MEASUREMENT GRID SHEETS

<u>DA/ILI</u>	<u>DA</u>	<u>ILI</u>
Route Number: _____	N-Segment: _____	ILI Log Distance: _____
Examination Date: 11/13/2011	IMA Number: _____	RMP-11 Ref. Section: Table 5.6.2
Mile Point: _____	_____	Reference Girth Weld: _____
Examination Performed By: dj	Region Number: _____	Distance From Girth Weld: _____
PG&E Project Manager: _____	Subregion # (ICDA): _____	
Approved By: _____	Stationing: _____	
Order Number: _____		

Grid Size = _____ Inch x _____ Inch (specify grid size)
 Clock Position (specify below)

Anomaly #: _____ Grid #: _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
A																						
B																						
C																						
D																						
E																						
F																						
G																						
H																						
I																						
J																						
K																						
L																						
M																						
N																						
O																						
P																						
Q																						
R																						
S																						
T																						
U																						
V																						
W																						
X																						

PIT DEPTH GRID 2 OF 2

INTERNAL CORROSION PIT DEPTH GRID

<u>DA/ILI</u>	<u>DA</u>	<u>ILI</u>
Route Number: _____	N-Segment: _____	ILI Log Distance: _____
Examination Date: 11/13/2011	IMA Number: _____	RMP-11 Ref. Section: Table 5.6.2
Mile Point: _____	_____	Reference Girth Weld: _____
Examination Performed By: d}	Region Number: _____	Distance From Girth Weld: _____
PG&E Project Manager: _____	Subregion # (ICDA): _____	
Approved By: _____	Stationing: _____	
Order Number: _____		

Grid Size = 6.0 Inch x 6.0 Inch
 Clock Position (specify below)

	1	2	3	4	5	6	7	8	9	10	11	12					
A	0.149	0.149	0.149	0.150	0.150	0.149											
B	0.149	0.149	0.149	0.151	0.149	0.150											
C	0.149	0.150	0.149	0.151	0.150	0.150											
D	0.150	0.150	0.150	0.149	0.151	0.150											
E	0.149	0.149	0.149	0.150	0.150	0.149											
F	0.150	0.149	0.149	0.150	0.151	0.149											
G							<table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr><td style="width: 20px; height: 10px;"></td><td style="width: 20px; height: 10px;"></td></tr> <tr><td style="width: 20px; height: 10px;"></td><td style="width: 20px; height: 10px;"></td></tr> <tr><td style="width: 20px; height: 10px;"></td><td style="width: 20px; height: 10px;"></td></tr> </table>										
H																	
I																	
J																	
K																	
L																	

	DA/ILI		DA		ILI
Route Number:	_____	N-Segment:	_____	ILI Log Distance:	_____
Examination Date:	11/13/2011	IMA Number:	_____	RMP-11 Ref. Section:	Table 5.6.2
Mile Point:	_____	Region Number:	_____	Reference Girth Weld:	_____
By:	<input checked="" type="checkbox"/> _____	Subregion # (ICDA):	_____	Distance From Girth Weld:	_____
PG&E Project Manager:	_____	Stationing:	_____		
Approved By:	_____				
Order Number:	_____				

3.0 Recoat Data

3.1 Sandblast Media: _____ **Anchor Profile Measurement:** _____

3.2 Pipe Recoated With:

Powercrete J Wax Tape Bar-Rust 235 Dev Grip 238 Dev Tar 247 Protal 7200 PE Tape

3.3 For Epoxy Coating Systems, Record Environmental Condition:

Air Temperature: _____ Dew Point: _____

Pipe Temperature: _____ Relative Humidity: _____

Time of Day: _____

3.4 Repair Coating Hardness (If ARC Coating): _____

3.5 Measured Coating Thickness: 3:00 - _____ 6:00 - _____ 9:00 - _____ 12:00 - _____

Holiday Tested?: Yes No

Device Used: Coil Wet Sponge Voltage Used: _____ Repair All Holidays.

3.6 Coupon Test Station Installed?: Yes No **ETS Installed?:** Yes No

If Yes, Date Installed: _____

Surface Configuration: Fink G-5 Box Garsonite Other: _____

3.7 Backfill Material: Native Imported Sand Other: _____

Coating Protections?: Yes No

If Yes, Check One: Rockguard Tuff-N-Nuff PipeSaver Other: _____

3.8 Pipe-to-Soil Readings Over Bell Hole After Backfill: _____

*If specified, a CIS should be done for approximately 100' on either side of the bell hole. Attach data.

Comments: _____

3.9 Attach site sketch of excavation site.

4.0 Repair Data

4.1 Repair Made: Yes No **4.1 Number of Repairs Made:** _____

4.3 Repair Type: Metallic Sleeve Non Metallic Sleeve Replace Can Filler Metal Other

4.4 Damage Repaired: Corrosion Mechanical Other

Misc. Comments/Information: _____

Form H: Direct Examination Data Sheet

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Mile Point: _____	Region Number: _____	Reference Girth Weld: _____
Examination Performed By: [Signature]	Subregion # (ICDA): _____	Distance From Girth Weld: _____
PG&E Project Manager: _____	Stationing: _____	
Approved By: _____		
Order Number: _____		

Test Equipment	Serial No.	Technique	Test Medium	Quality Control	Surface Condition
Yoke <input checked="" type="checkbox"/>	15386/B300	Continuous <input checked="" type="checkbox"/>	Wet <input checked="" type="checkbox"/>	Batch # _____	<input checked="" type="checkbox"/> As Blasted NACE 2
Permanent Magnet <input type="checkbox"/>	_____	Residual <input type="checkbox"/>	Dry <input type="checkbox"/>	Batch # _____	<input type="checkbox"/> Bare Metal
Coil <input type="checkbox"/>	_____	AC <input type="checkbox"/>	Fluorescent <input checked="" type="checkbox"/>	Batch # 09f001	<input type="checkbox"/> As Ground
Other <input type="checkbox"/>	_____	DC <input type="checkbox"/>	Black on White <input type="checkbox"/>	Batch # _____	<input type="checkbox"/> Painted
					<input type="checkbox"/> Other (Walnut Blasted)

Reference GPS: _____

Northing: _____

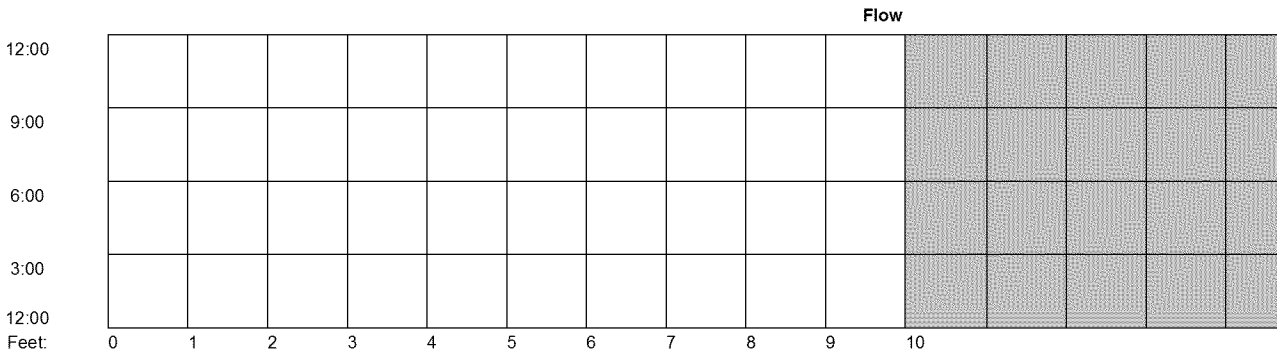
Easting: _____

Acceptance Criteria: API 1160

Accepted? Yes No, See Table below.

Map of Magnetic Particle Indications: _____

Zero Reference Point: edge of exposed pipe.



Table

Ind No.	Axial Position	Circumferential Position	Indication Length	Wall Thickness before Softpad	Wall Thickness after Final Softpad	Indication Removed (Yes, No)
1	4'	6:00	.75"	in weld		
2	7	12:00	1"	in weld		

Notes: Linear indication 1 is located in the reinforcement weld at 6:00. Linear indication 2 is located in the 90 deg tangent weld at 12:00.

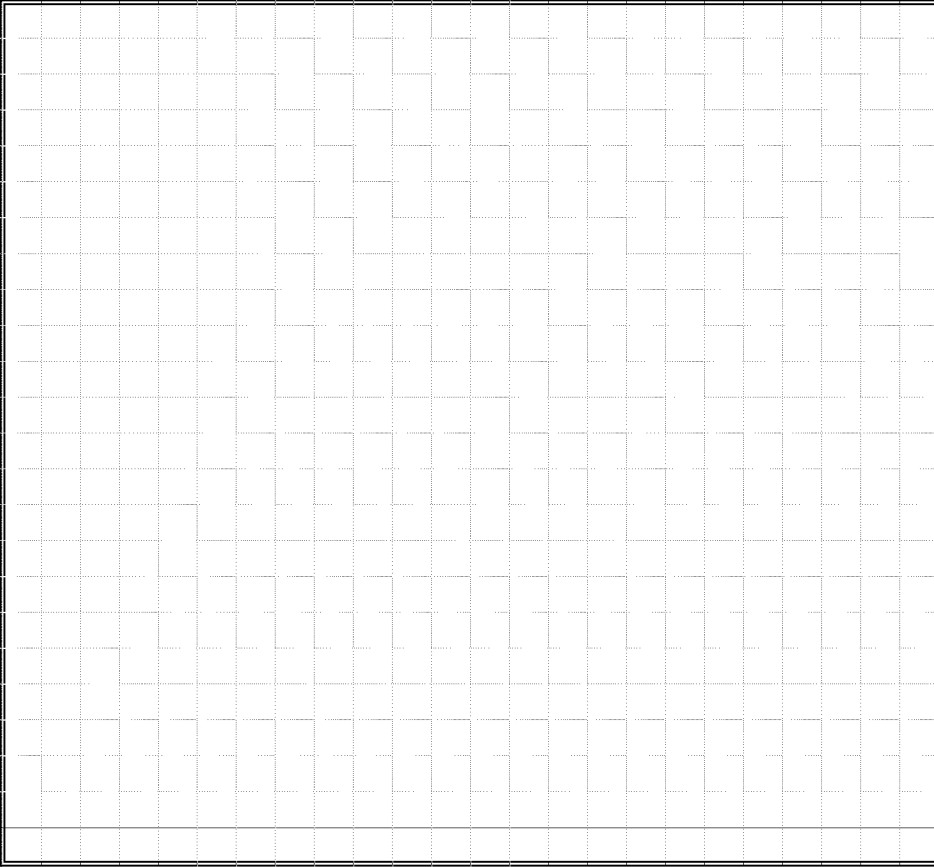
The examination above was performed to the best of my professional ability in accordance with Mears MPE-01.

Technician's Signature: _____	Mears Level: _____	Date: _____
Assistant: _____	Mears Level: _____	Date: _____

Form H: Site Map

Route Number: <u>DA/LL</u>	N-Segment: <u>DA</u>	ILI Log Distance: <u>LI</u>
Examination Date: <u>11/13/2011</u>	IMA Number: _____	RMP-11 Ref. Section: <u>Table 5.6.2</u>
Mile Point: _____	Region Number: _____	Reference Girth Weld: _____
Examination Performed By: <u>[Signature]</u>	Subregion # (ICDA): _____	Distance From Girth Weld: _____
PG&E Project Manager: _____	Stationing: _____	
Approved By: _____		
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*Sketch Not Drawn to Scale



Misc. Comments/Information About Area Surrounding Ditch:

<u>DA/ILI</u>	<u>DA</u>	<u>ILI</u>
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Mile Point: _____	_____	Reference Girth Weld: _____
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PG&E Project Manager: _____	Subregion # (ICDA): _____	
Approved By: _____	Stationing: _____	
Order Number: _____		

Section of pipe

	1	2	3	4	5	6	7	8	9	10	11	12
1:00	0.149	0.149	0.149	0.151	0.152							
2:00	0.149	0.151	0.151	0.151	0.151							
3:00	0.149	0.151	0.150	0.149	0.152							
4:00	0.150	0.150	0.150	0.152	0.153							
5:00	0.149	0.151	0.151	0.153	0.152							
6:00	0.149	0.149	0.149	0.152	0.150							
7:00	0.149	0.151	0.149	0.152	0.152							
8:00	0.150	0.150	0.150	0.152	0.153							
9:00	0.150	0.149	0.149	0.152	0.152							
10:00	0.149	0.149	0.149	0.153	0.152							
11:00	0.149	0.151	0.150	0.151	0.152							
12:00	0.149	0.151	0.150	0.151	0.153							