



# IHI Southwest Technologies Examination Summary Record

| Utility: NextEra Energy |                      | Site: Point Beach Nuclear Plant Unit 2<br>Outage: U2R32 |                        | Summary Sheet No. 00300 |                                    |       |                   |
|-------------------------|----------------------|---|------------------------|-------------------------|------------------------------------|-------|-------------------|
| System: Steam Generator |                      | Line Subassembly: "A" SG Out Noz-to-SE                  |                        |                         | Identification: RC-36-MRCL-AII-01A |       |                   |
| NDE Method              | Proc/Rev/Chg/ICN     | NDE Examination   | Calibrationsheet No's. | Exam Sheet No.          | NRI                                | Other | Remarks           |
| AUT                     | ISwT-PDI-AUT11/2/0/1 | UT Probe 1 (60-88")                                     | 110002                 | 6 - 7                   | X                                  | -     | UT TWD & AWY Exam |
| AUT                     | ISwT-PDI-AUT11/2/0/1 | UT Probe 2 (60-88")                                     | 110002                 | 6 - 7                   | X                                  | -     | UT TWD & AWY Exam |
| AUT                     | ISwT-PDI-AUT11/2/0/1 | UT Probe 1 (60-88")                                     | 110005                 | 8 - 10                  | X                                  | -     | UT CW & CCW Exam  |
| AUT                     | ISwT-PDI-AUT11/2/0/1 | UT Probe 2 (60-88")                                     | 110001                 | 8 - 10                  | X                                  | -     | UT CW & CCW Exam  |
| AET                     | ISwT-PDI-AET3/2/0/0  | ET Probe 1  | ET03-PTB-002           | 8 - 10                  | X                                  | -     | Eddy Current Exam |
| AET                     | ISwT-PDI-AET3/2/0/0  | ET Probe 2  | ET03-PTB-002           | 8 - 10                  | X                                  | -     | Eddy Current Exam |

## Examination Summary:

This weld was examined from the inside surface using SG-NExT, T-III, & MS5800 examination equipment.  
The examination coverage was 100%.

|                                       |                |                                   |                |
|---------------------------------------|----------------|-----------------------------------|----------------|
| Prepared By: Steven J. Todd           |                |                                   |                |
| Signature: <i>Steven J. Todd</i>      | Date: 11/22/12 |                                   |                |
| ISwT Project Manager                  |                |                                   |                |
| Reviewed By: <i>William A. Jensen</i> |                | Reviewed By: <i>Jeff Bukauski</i> |                |
| Signature: <i>William A. Jensen</i>   | Date: 11-23-12 | Signature: <i>Jeff Bukauski</i>   | Date: 11/28/12 |
| NextEra Energy Point/Beach            |                | ANII                              |                |





# IHI SOUTHWEST TECHNOLOGIES

## AUTOMATED ULTRASONIC EXAMINATION RECORD

|  |  |  |                              |            |                               |
|--|--|--|------------------------------|------------|-------------------------------|
| <b>Site/Plant :</b> Point Beach Unit 2                                 | <b>Weld Identification:</b> RC-36-MRCL-AII-01A         | <b>Pro/Rev/Chg/ICN:</b> ISWT-PDI-AUT11/2/0/1 | <b>Examination No.:</b> ID-6 |            |                               |
| <b>Project No.:</b> 12-0301  | <b>Weld Description:</b> A S/G Out Noz-to-SE (0°-185°) | <b>Device Configuration:</b> 136-00045       |                              |            |                               |
| <b>Mod.Conf.:</b> 138-00032  | <b>Scan Path Drawing:</b> 134-00079                    | <b>Exam Date</b>                             | <b>Examination Time</b>      |            |                               |
| <b>Data Acquisition Operator (s) / SNT Level:</b><br>Bryan Wright / II |  | 18 Nov. 2012                                 | <b>Start</b>                 | <b>End</b> | <b>Surface Temperature °F</b> |
|  |  |  | 0945                         | 1118       | 94                            |

### Data Acquisition

| Scan Controller Parameters  | Increment Axis             | Planned | Actual | Scan Axis             | Planned | Actual | Positional Parameters                 |
|-----------------------------|----------------------------|---------|--------|-----------------------|---------|--------|---------------------------------------|
| Controller: SG-NExT         | Lower Limit                | 70.75   | 70.75  | Lower Limit           | 0.00    | 0.00   | Beam Direction: Twd/Awy               |
| Scan: X Rotator Drive       | Upper Limit                | 80.35   | 80.35  | Upper Limit           | 49.77   | 49.77  | Probe Type: PA22-001                  |
| Increment: Y Axial Drive    | Inc. Interval (Resolution) | 0.15    |        | DCI (Scan Resolution) | 0.10    |        | Scanning Speed: 2.0 inches per second |
| Mode: Automatic Scan        | Conversion Units           | Inches  |        | Conversion Units      | Inches  |        | Number of Scans: 65                   |
| Scan Motion: Bi-directional |                            |         |        | Radius In.            | 15.38"  |        | Weld C/L: 72.262"                     |
| Correction: N/A             |                            |         |        |                       |         |        | Elevation/Nozzle C/L: N/A             |

| Master Acquisition File: DM_Pipe_ID_90_AWY_270_TWD_Skew.acq |                    |      |             |             | Calibration Records: | Examination Notes:          |
|---|--------------------|------|-------------|-------------|----------------------|-----------------------------|
| Probe   | Channel /Angle(s)  | Skew | Scan Offset | Step Offset |                      |                             |
| Probe 1   | 1-(60-88°L)        | 90°  | + 69.92(in) | - 1.52(in)  | 110002               | Pipe Diameter = 30.83"      |
| Probe 2   | 2-(60-88°L)        | 270° | + 59.22(in) | - 2.90(in)  | 110002               | Circumference = 96.86"      |
| Probe 3   | 3-(0°Profilometry) | 0°   | + 0.00(in)  | + 0.00(in)  | 110002               | <b>Examination Remarks:</b> |
| N/A   | N/A                | N/A  | N/A         | N/A         | N/A                  |                             |

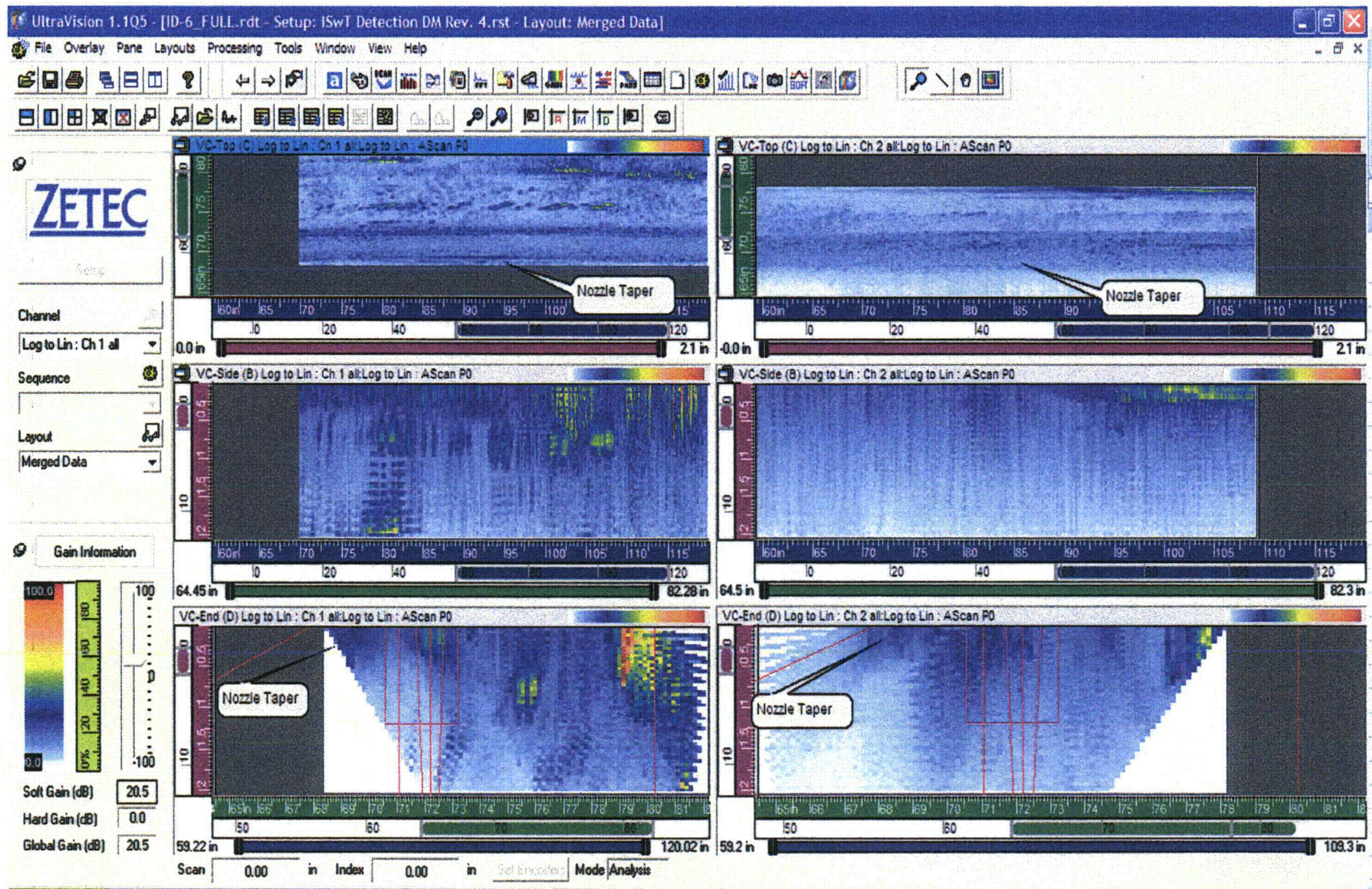
### Data Analysis

| Increment & Scan Positions Actual |                    |       |               |       | Recordable Indications |                                      |   | Analyst Remarks                               |  |
|-----------------------------------|--------------------|-------|---------------|-------|------------------------|--------------------------------------|---|---|--|
| Scan No.(s)                       | Increment Position |       | Scan Position |       |                        | Yes                                  | No  | N/A   | Attachment:  |
|                                   | Start              | Stop  | Start         | Stop  |                        |                                      |   |   |  |
| 1-65                              | 70.75              | 80.35 | 0.00          | 49.77 | Probe 1                | Channel 1 <input type="checkbox"/>   | Channel 2 <input checked="" type="checkbox"/>   | Channel 3 <input type="checkbox"/>            | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  |
|                                   |                    |       |               |       | Probe 2                | Channel 1 <input type="checkbox"/>   | Channel 2 <input checked="" type="checkbox"/>   | Channel 3 <input type="checkbox"/>            | Further Evaluation Required:<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  |
|                                   |                    |       |               |       |                        | Channel 1 <input type="checkbox"/>   | Channel 2 <input checked="" type="checkbox"/>   | Channel 3 <input type="checkbox"/>            |  |
|                                   |                    |       |               |       |                        | Channel 1 <input type="checkbox"/>   | Channel 2 <input checked="" type="checkbox"/>   | Channel 3 <input type="checkbox"/>            |  |
|                                   |                    |       |               |       | Probe 3                | Channel 1 <input type="checkbox"/>   | Channel 2 <input type="checkbox"/>              | Channel 3 <input checked="" type="checkbox"/> | Archive Media:<br><input checked="" type="checkbox"/> External Hard Drive<br><input type="checkbox"/> CD-ROM<br><input type="checkbox"/> DVD-ROM |
|                                   |                    |       |               |       |                        | Channel 1 <input type="checkbox"/>   | Channel 2 <input type="checkbox"/>              | Channel 3 <input checked="" type="checkbox"/> |  |
|                                   |                    |       |               |       |                        | Channel 1 <input type="checkbox"/>   | Channel 2 <input type="checkbox"/>              | Channel 3 <input checked="" type="checkbox"/> |  |
|                                   |                    |       |               |       | ET Probe 1             | Channel 1-2 <input type="checkbox"/> | Channel 3-4 <input checked="" type="checkbox"/> |   |  |
|                                   |                    |       |               |       | ET Probe 2             | Channel 1-2 <input type="checkbox"/> | Channel 3-4 <input checked="" type="checkbox"/> |   |  |
|                                   |                    |       |               |       | N/A                    | N/A                                  | <input type="checkbox"/>                        | <input type="checkbox"/>                      |  |

|                                    |                                       |
|------------------------------------|---------------------------------------|
| <b>Analyst / SNT Level / Date:</b> | Jesse R. Delgado / III / 18 Nov. 2012 |
|------------------------------------|---------------------------------------|



### **ID-6 SG A Outlet Nozzle to Safe-End (Away Towards)**







# IHI SOUTHWEST TECHNOLOGIES

## AUTOMATED ULTRASONIC EXAMINATION RECORD

|  |  |  |                              |            |                               |
|--|--|--|------------------------------|------------|-------------------------------|
| <b>Site/Plant :</b> Point Beach Unit 2                             | <b>Weld Identification:</b> RC-36-MRCL-AII-01A           | <b>Pro/Rev/Chg/ICN:</b> ISWT-PDI-AUT11/2/0/1 | <b>Examination No.:</b> ID-7 |            |                               |
| <b>Project No.:</b> 12-0301  | <b>Weld Description:</b> A S/G Out Noz-to-SE (180°-365°) | <b>Device Configuration:</b> 136-00045       |                              |            |                               |
| <b>Mod.Conf.:</b> 138-00032  | <b>Scan Path Drawing:</b> 134-00079                      | <b>Exam Date</b>                             | <b>Examination Time</b>      |            |                               |
| <b>Data Acquisition Operator (s) / SNT Level:</b> Jeremy Howe / II |  | 18 Nov. 2012                                 | <b>Start</b>                 | <b>End</b> | <b>Surface Temperature °F</b> |
|  |  |  | 1127                         | 1209       | Start: 94, End: 94            |

### Data Acquisition

| Scan Controller Parameters  | Increment Axis             | Planned | Actual | Scan Axis             | Planned | Actual | Positional Parameters                 |
|-----------------------------|----------------------------|---------|--------|-----------------------|---------|--------|---------------------------------------|
| Controller: SG-NExT         | Lower Limit                | 70.75   | 70.75  | Lower Limit           | 48.43   | 48.43  | Beam Direction: Twd/Awy               |
| Scan: X Rotator Drive       | Upper Limit                | 80.35   | 80.35  | Upper Limit           | 98.20   | 98.20  | Probe Type: PA22-001                  |
| Increment: Y Axial Drive    | Inc. Interval (Resolution) | 0.15    |        | DCI (Scan Resolution) | 0.10    |        | Scanning Speed: 2.0 inches per second |
| Mode: Automatic Scan        | Conversion Units           | Inches  |        | Conversion Units      | Inches  |        | Number of Scans: 65                   |
| Scan Motion: Bi-directional |                            |         |        | Radius In.            | 15.38"  |        | Weld C/L: 72.262"                     |
| Correction: N/A             |                            |         |        |                       |         |        | Elevation/Nozzle C/I: N/A             |

| <b>Master Acquisition File:</b> DM_Pipe_ID_90_AWY_270_TWD_Skew.acq |                    |      |             |             | <b>Calibration Records:</b> | <b>Examination Notes:</b>   |
|--|--------------------|------|-------------|-------------|-----------------------------|-----------------------------|
| Probe  | Channel /Angle(s)  | Skew | Scan Offset | Step Offset |                             |                             |
| Probe 1  | 1-(60-88°L)        | 90°  | + 69.92(in) | - 1.52(in)  | 110002                      | Pipe Diameter = 30.83"      |
| Probe 2  | 2-(60-88°L)        | 270° | + 59.22(in) | - 2.90(in)  | 110002                      | Circumference = 96.86"      |
| Probe 3  | 3-(0°Profilometry) | 0°   | + 0.00(in)  | + 0.00(in)  | 110002                      | <b>Examination Remarks:</b> |
| N/A  | N/A                | N/A  | N/A         | N/A         | N/A                         |                             |

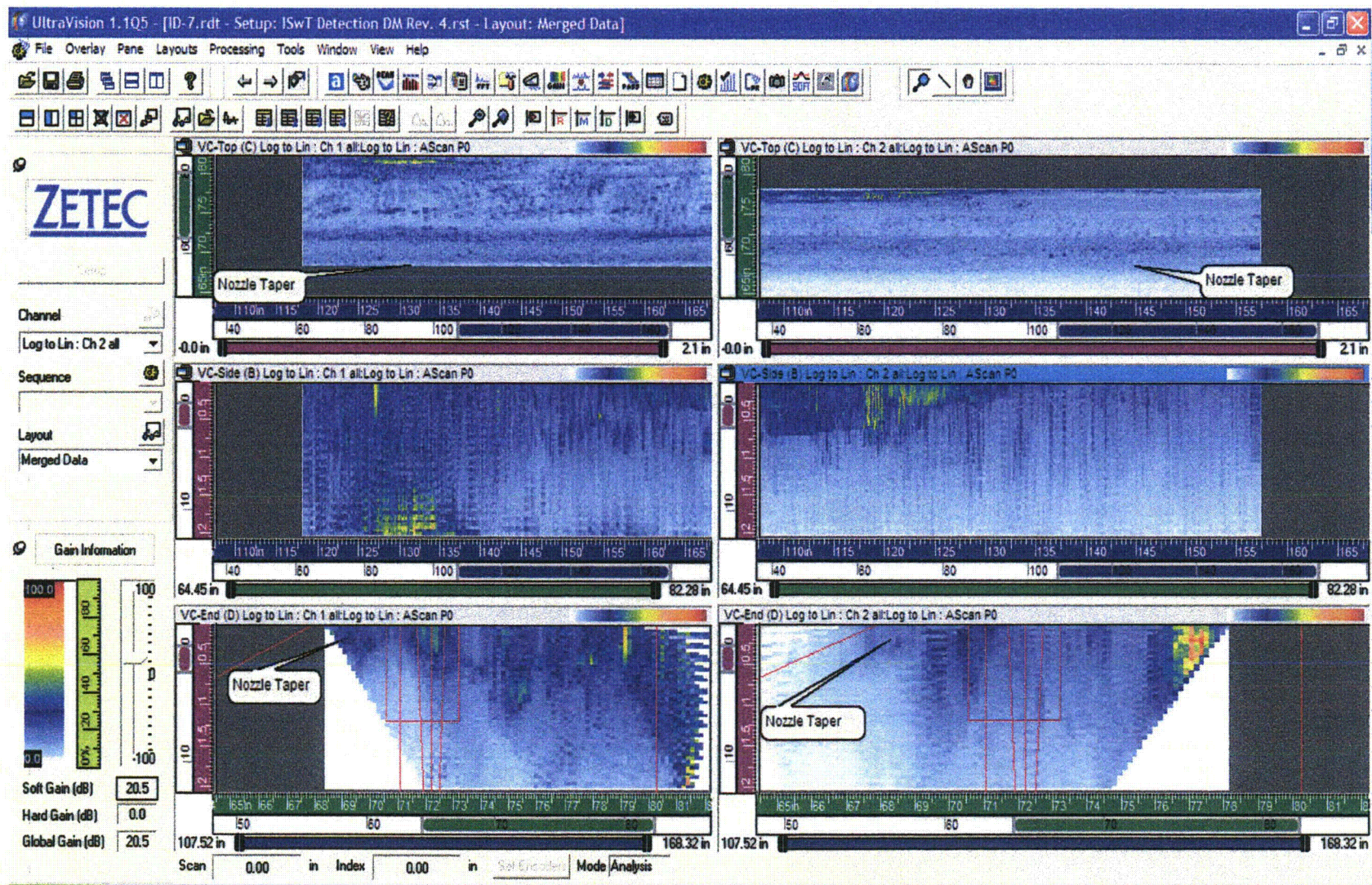
### Data Analysis

| Increment & Scan Positions Actual |                    |       |               |       | Recordable Indications |                                      |                                     | Analyst Remarks                     |   |
|-----------------------------------|--------------------|-------|---------------|-------|------------------------|--------------------------------------|-------------------------------------|-------------------------------------|---|
| Scan No.(s)                       | Increment Position |       | Scan Position |       |                        | Yes                                  | No                                  | N/A                                 | Attachment:   |
|                                   | Start              | Stop  | Start         | Stop  |                        |                                      |                                     |                                     |   |
| 1-65                              | 70.75              | 80.35 | 48.43         | 98.20 | Probe 1                | Channel 1 <input type="checkbox"/>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
|                                   |                    |       |               |       |                        | Channel 2 <input type="checkbox"/>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |
|                                   |                    |       |               |       |                        | Channel 3 <input type="checkbox"/>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | Further Evaluation Required:  |
|                                   |                    |       |               |       | Probe 2                | Channel 1 <input type="checkbox"/>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
|                                   |                    |       |               |       |                        | Channel 2 <input type="checkbox"/>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |
|                                   |                    |       |               |       |                        | Channel 3 <input type="checkbox"/>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | Archive Media:  |
|                                   |                    |       |               |       | Probe 3                | Channel 1 <input type="checkbox"/>   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> External Hard Drive             |
|                                   |                    |       |               |       |                        | Channel 2 <input type="checkbox"/>   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       |                        | Channel 3 <input type="checkbox"/>   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> CD-ROM                                     |
|                                   |                    |       |               |       | ET Probe 1             | Channel 1-2 <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> DVD-ROM                                    |
|                                   |                    |       |               |       | ET Probe 2             | Channel 3-4 <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       | N/A                    | N/A                                  | <input type="checkbox"/>            | <input type="checkbox"/>            |   |

**Analyst / SNT Level / Date:** Jesse R. Delgado / III / 18 Nov. 2012



# ID-7 SG A Outlet Nozzle to Safe-End (Away Towards)







# IHI SOUTHWEST TECHNOLOGIES

## AUTOMATED ULTRASONIC EXAMINATION RECORD

|  |   |                                       |                                       |   |
|--|---|---------------------------------------|---------------------------------------|---|
| Site/Plant : Point Beach Unit 2                              | Weld Identification: RC-36-MRCL-AII-01A         | Pro/Rev/Chg/ICN: ISwT-PDI-AUT11/2/0/1 | Examination No.: ID-8                 |   |
| Project No.: 12-0301   | Weld Description: A S/G Out Noz-to-SE (0°-125°) | Device Configuration: 136-00045       |                                       |   |
| Mod.Conf.: 138-00032   | Scan Path Drawing: 134-00079                    | Exam Date: 18 Nov. 2012               | Examination Time: Start 0524 End 0635 | Surface Temperature °F: Start 94 End 94 |
| Data Acquisition Operator (s) / SNT Level: Bryan Wright / II |   |                                       |                                       |   |

### Data Acquisition

| Scan Controller Parameters |                 | Increment Axis             | Planned | Actual | Scan Axis             | Planned | Actual | Positional Parameters |                       |
|----------------------------|-----------------|----------------------------|---------|--------|-----------------------|---------|--------|-----------------------|-----------------------|
| Controller:                | SG-NExT         | Lower Limit                | 71.56   | 71.56  | Lower Limit           | 0.00    | 0.00   | Beam Direction:       | Cw/Ccw                |
| Scan:                      | X Rotator Drive | Upper Limit                | 76.24   | 76.24  | Upper Limit           | 33.63   | 33.63  | Probe Type:           | PA22-001              |
| Increment:                 | Y Axial Drive   | Inc. Interval (Resolution) | 0.05    |        | DCI (Scan Resolution) | 0.05    |        | Scanning Speed:       | 1.5 inches per second |
| Mode:                      | Automatic Scan  | Conversion Units           | Inches  |        | Conversion Units      | Inches  |        | Number of Scans:      | 95                    |
| Scan Motion:               | Bi-directional  |                            |         |        | Radius In.            | 15.38"  |        | Weld C/L:             | 72.262"               |
| Correction:                | N/A             |                            |         |        |                       |         |        | Elevation/Nozzle C/I  | N/A                   |

| Master Acquisition File: DM_Pipe_ID_0_CW_180_CCW_Skew.acq |                   |        |             |             | Calibration Records: | Examination Notes:<br>Pipe Diameter = 30.83"<br>Circumference = 96.86" |
|---|-------------------|--------|-------------|-------------|----------------------|--|
| Probe   | Channel /Angle(s) | Skew   | Scan Offset | Step Offset |                      |  |
| Probe 1   | 1-(60-88°L)       | 0°     | + 27.57(in) | - 2.21(in)  | 110005               |  |
| Probe 2   | 2-(60-88°L)       | 180°   | + 37.01(in) | - 2.21(in)  | 110001               |  |
| N/A   | N/A               | N/A    | N/A         | N/A         | N/A                  | Examination Remarks:   |
| ET Probe 1  | 1-2               | +22.5° | + 5.35(in)  | + 0.00(in)  | ET03-PTB-02          |  |
| ET Probe 2  | 3-4               | -22.5° | - 5.35(in)  |             |                      |  |

### Data Analysis

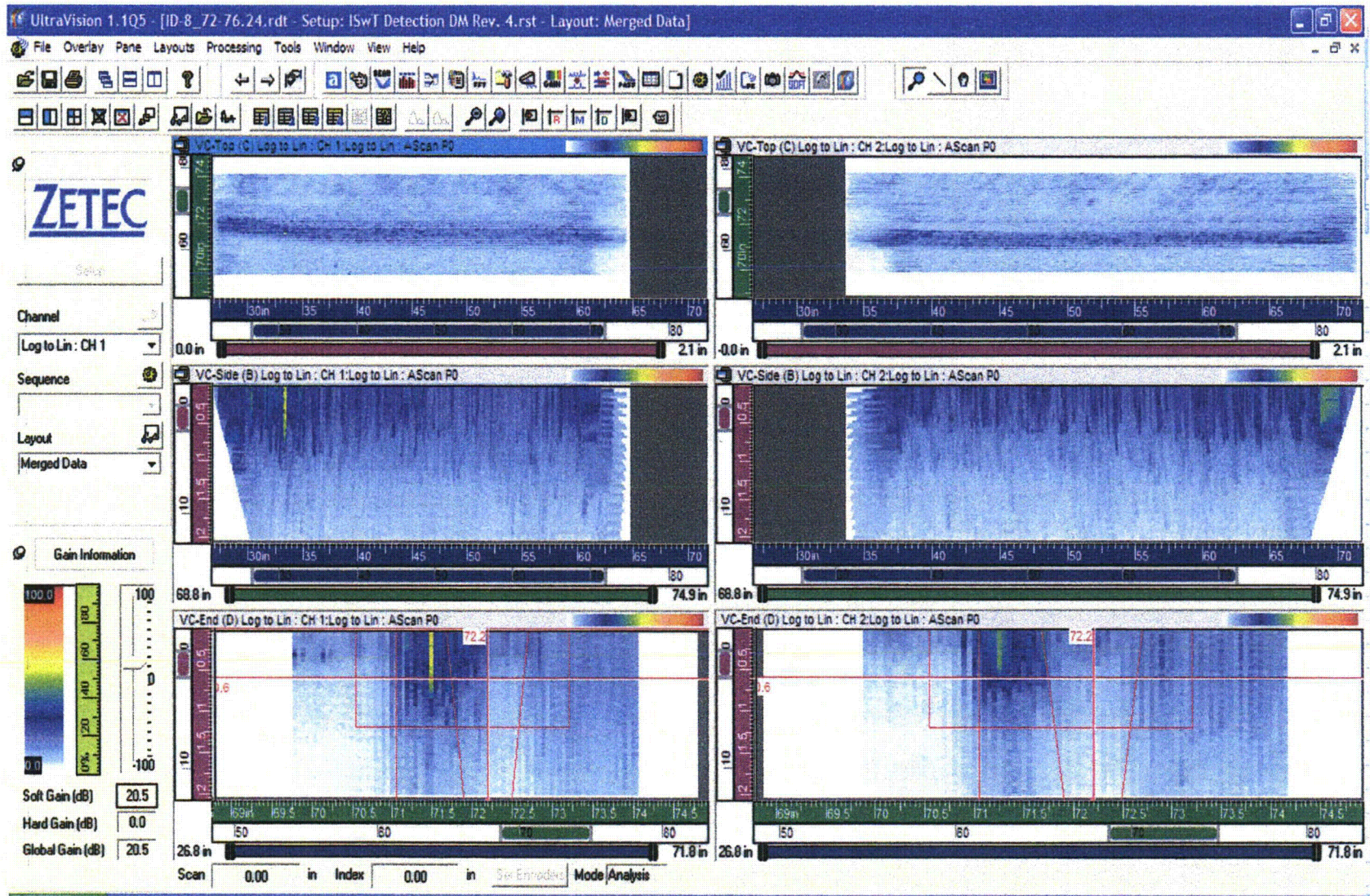
| Increment & Scan Positions Actual |                    |       |               |       | Recordable Indications |                          |                                     | Analyst Remarks                     |   |
|-----------------------------------|--------------------|-------|---------------|-------|------------------------|--------------------------|-------------------------------------|-------------------------------------|---|
| Scan No.(s)                       | Increment Position |       | Scan Position |       |                        | Yes                      | No                                  | N/A                                 | Attachment:<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>Further Evaluation Required:<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>Archive Media:<br><input checked="" type="checkbox"/> External Hard Drive<br><input type="checkbox"/> CD-ROM<br><input type="checkbox"/> DVD-ROM |
|                                   | Start              | Stop  | Start         | Stop  |                        | Channel 1                | Channel 2                           | Channel 3                           |   |
| 1 - 95                            | 71.56              | 76.24 | 0.00          | 33.63 | Probe 1                | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |
|                                   |                    |       |               |       |                        | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |
|                                   |                    |       |               |       | Probe 2                | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |
|                                   |                    |       |               |       |                        | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |
|                                   |                    |       |               |       |                        | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |
|                                   |                    |       |               |       | Probe 3                | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       |                        | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       |                        | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       | ET Probe 1             | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       | ET Probe 2             | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       | N/A                    | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |

Analyst / SNT Level / Date:

Jesse R. Delgado / III / 18 Nov. 2012



# ID-8 SG A Outlet Nozzle to Safe-End (Cw CCW)







# IHI SOUTHWEST TECHNOLOGIES

## AUTOMATED EDDY CURRENT EXAMINATION RECORD

|   |   |                                  |                                       |   |
|---|---|----------------------------------|---------------------------------------|---|
| Site/Plant : Point Beach Unit 2                                   | Weld Identification: RC-36-MRCL-AII-01A         | Pro/Rev/Chg/ICN: ISWT-AET3/2/0/0 | Examination No.: ID-8                 |   |
| Project No.: 12-0301  | Weld Description: A S/G Out Noz-to-SE (0°-125°) | Device Configuration: 136-00045  |                                       |   |
| Mod.Conf.: 138-00032  | Scan Path Drawing: 134-00079                    | Exam Date: 18-Nov-12             | Examination Time: Start 0524 End 0736 | Surface Temperature °F: Start 94 End 94 |
| Data Acquisition Operator (s) / SNT Level: David R. Kleinjan / II |   |                                  |                                       |   |

### Data Acquisition

| Scan Controller Parameters |                 | Increment Axis     | Planned | Actual | Scan Axis        | Planned | Actual | Positional Parameters |                       |
|----------------------------|-----------------|--------------------|---------|--------|------------------|---------|--------|-----------------------|-----------------------|
| Controller:                | SG-NEXT         | Lower Limit        | 71.56   | 71.56  | Lower Limit      | 0.00    | 0.00   | Beam Direction:       | Cw/Ccw                |
| Scan:                      | X Rotator Drive | Upper Limit        | 76.24   | 76.25  | Upper Limit      | 33.63   | 33.63  | ET Probe Size:        | .24 (in)              |
| Increment:                 | Y Axial Drive   | Increment Interval | 0.05    |        | Resolution       | 0.20    |        | Scanning Speed        | 1.5 inches per second |
| Mode:                      | Automatic Scan  | Conversion Units   | Inches  |        | Conversion Units | Inches  |        | Number of Scans:      | 95                    |
| Scan Motion:               | Bi-directional  |                    |         |        | Radius In.       | 15.38"  |        | Weld C/L              | 72.262"               |
| Correction:                | N/A             |                    |         |        |                  |         |        | Elevation/Nozzle C/L  | N/A                   |

| Module Parameters: |            |      |             |             |             | Calibration Records: | Examination Notes:     |
|--------------------|------------|------|-------------|-------------|-------------|----------------------|------------------------|
| Status             | Channel(s) | Skew | Scan Offset | Step Offset |             |                      | Pipe diameter = 30.83" |
| Probe 1            | On         | 1-2  | + 22.5°     | +5.35 (in)  | -2.21 (in.) | ET-03-PTB-002        | Circumference = 96.86" |
| Probe 2            | On         | 3-4  | - 22.5°     | -5.35 (in)  | -2.21 (in.) | ET-03-PTB-002        |                        |
|                    |            |      |             |             |             |                      | Examination Remarks:   |
|                    |            |      |             |             |             |                      | ETID8 71.56-74.07      |
|                    |            |      |             |             |             |                      | ETID8 72-76.24         |
|                    |            |      |             |             |             |                      |                        |
|                    |            |      |             |             |             |                      |                        |
|                    |            |      |             |             |             |                      |                        |

### Data Analysis

| Increment & Scan Positions Actual |                    |       |               |       | Recordable Indications |                          |                                     | Analyst Remarks                     |  |
|-----------------------------------|--------------------|-------|---------------|-------|------------------------|--------------------------|-------------------------------------|-------------------------------------|--|
| Scan No.(s)                       | Increment Position |       | Scan Position |       |                        | Yes                      | No                                  | N/A                                 | Attachment:<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
|                                   | Start              | Stop  | Start         | Stop  |                        |                          |                                     |                                     |  |
| 1-95                              | 71.56              | 76.24 | 0.00          | 33.63 | Probe 1 Channel 1      | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | EXAMINATION C SCAN FOR ALL 4 CHANNELS  |
|                                   |                    |       |               |       | Channel 2              | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |  |
|                                   |                    |       |               |       | Probe 2 Channel 3      | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |  |
|                                   |                    |       |               |       | Channel 4              | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |  |
|                                   |                    |       |               |       | Probe 3 Channel 5      | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |  |
|                                   |                    |       |               |       | Channel 6              | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |  |
|                                   |                    |       |               |       | Probe 4 Channel 7      | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |  |
|                                   |                    |       |               |       | Channel 8              | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |  |

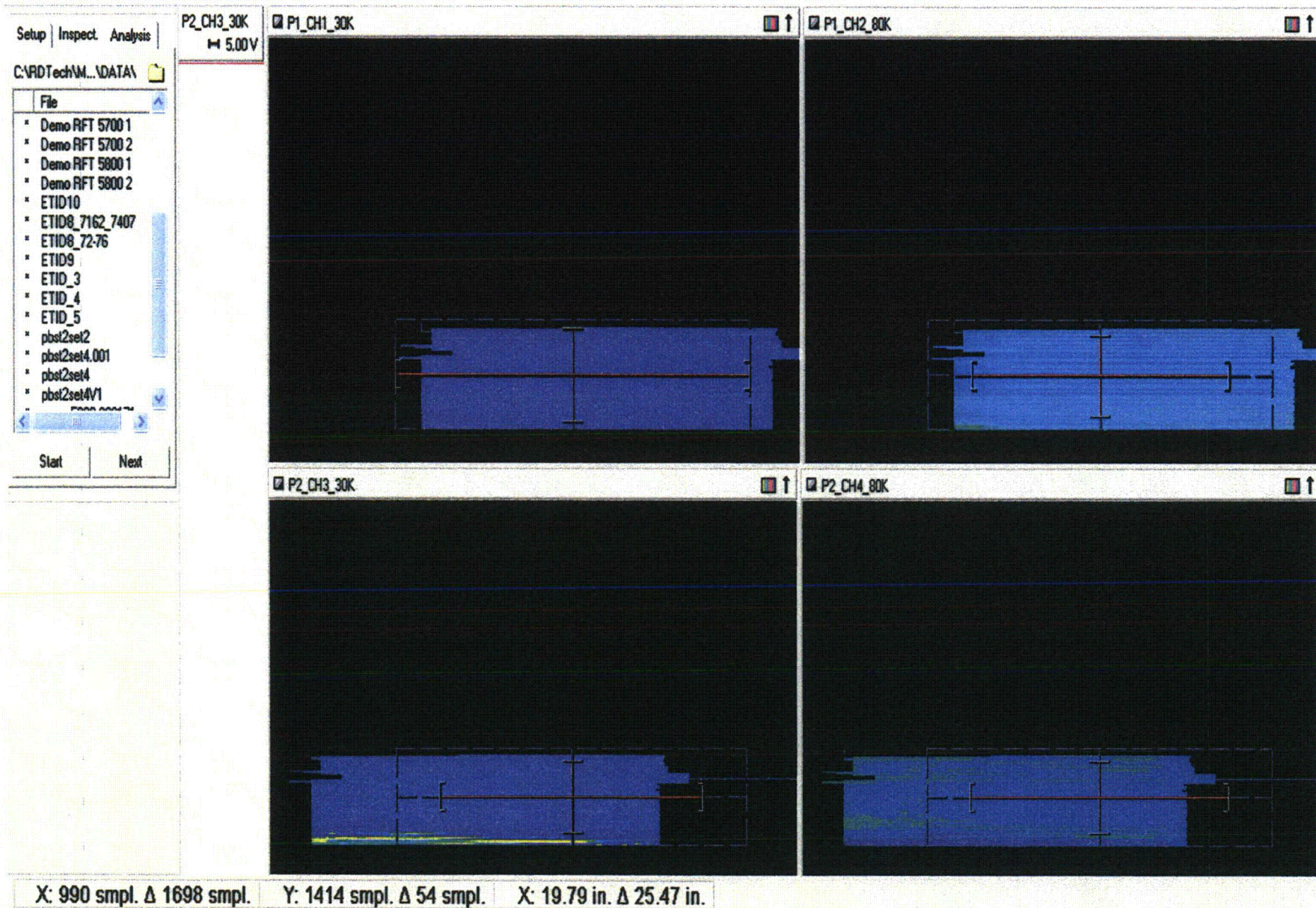
|   |  |
|---|--|
| Analyst / SNT Level / Date:<br>David R. Kleinjan / II | Reviewed By/Analyst / SNT Level /Signature:<br>William Angell / II |
|---|--|



Project No. 12-0301  
Instrument S/N 131612

EXAMINATION ET-ID-8 71.62-74.07  
STATION 1

Date: 18 NOV 2012  
CALIBRATION SHEET: ET-03-PTB-001





Project No. 12-0301  
Instrument S/N 131612

EXAMINATION ET-ID-8 72-76  
STATION 1

Date: 18 NOV 2012  
CALIBRATION SHEET: ET-03-PTB-001

Setup | Inspect | Analysis

C:\VRD\Tech\VM...\DATA\

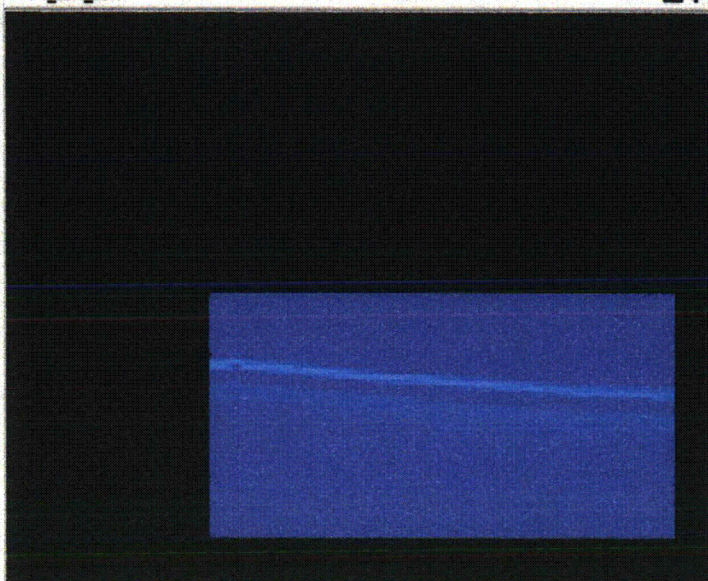
File

- Demo RFT 5700 1
- Demo RFT 5700 2
- Demo RFT 5800 1
- Demo RFT 5800 2
- ETID10
- ETID8\_7162\_7407
- ETID8\_72-76
- ETID9
- ETID\_3
- ETID\_4
- ETID\_5
- pbs2set2
- pbs2set4.001
- pbs2set4
- pbs2set4V1

Start | Next

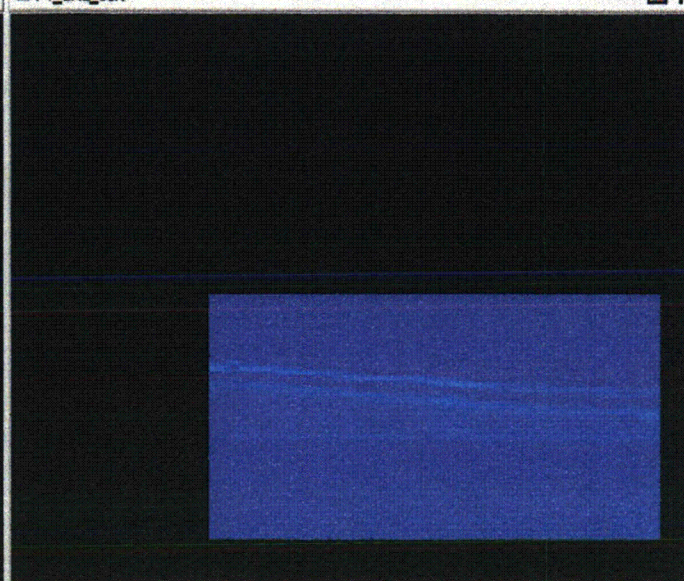
P2\_CH3\_30K  
5.00V

P1\_CH1\_30K



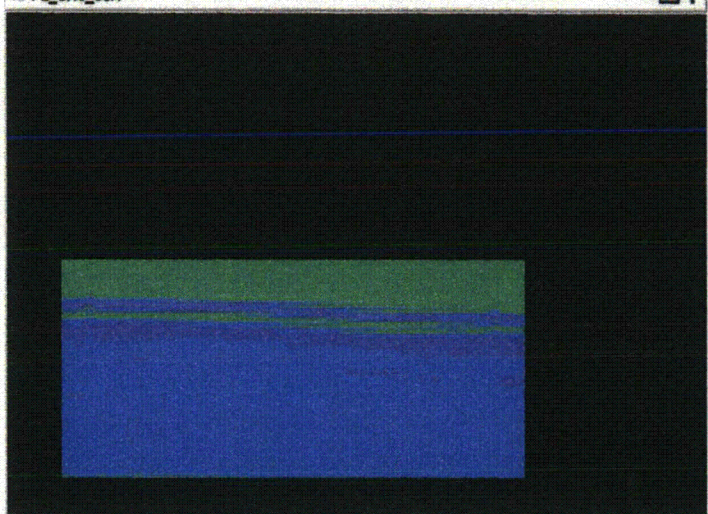
↑

P1\_CH2\_80K



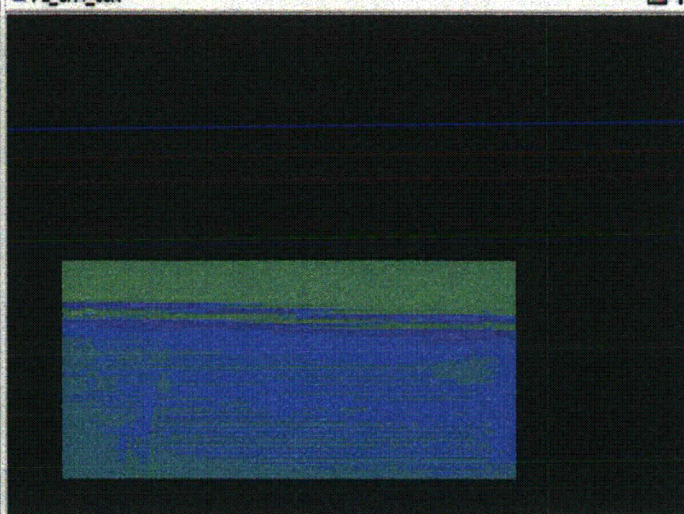
↑

P2\_CH3\_30K



↑

P2\_CH4\_80K



↑

X: -217346 smpl. Δ 2162 smpl. Y: 50830 smpl. Δ 692 smpl. X: -4346.95 in. Δ 21.62 in.





# IHI SOUTHWEST TECHNOLOGIES

## AUTOMATED ULTRASONIC EXAMINATION RECORD

|  |   |                                       |                       |
|--|---|---------------------------------------|-----------------------|
| Site/Plant : Point Beach Unit 2            | Weld Identification: RC-36-MRCL-AII-01A           | Pro/Rev/Chg/ICN: ISWT-PDI-AUT11/2/0/1 | Examination No.: ID-9 |
| Project No.: 12-0301                       | Weld Description: A S/G Out Noz-to-SE (120°-245°) | Device Configuration: 136-00045       |                       |
| Mod.Conf.: 138-00032                       | Scan Path Drawing: 134-00079                      | Exam Date                             | Examination Time      |
| Data Acquisition Operator (s) / SNT Level: | Bryan Wright / II                                 | 18 Nov. 2012                          | Start End             |
|  |   | 0750 0835                             | 94 94                 |

### Data Acquisition

| Scan Controller Parameters  | Increment Axis             | Planned | Actual | Scan Axis             | Planned | Actual | Positional Parameters                 |
|-----------------------------|----------------------------|---------|--------|-----------------------|---------|--------|---------------------------------------|
| Controller: SG-NExT         | Lower Limit                | 71.56   | 71.56  | Lower Limit           | 32.29   | 32.29  | Beam Direction: Cw/Ccw                |
| Scan: X Rotator Drive       | Upper Limit                | 76.24   | 76.24  | Upper Limit           | 65.92   | 65.92  | Probe Type: PA22-001                  |
| Increment: Y Axial Drive    | Inc. Interval (Resolution) | 0.05    |        | DCI (Scan Resolution) | 0.05    |        | Scanning Speed: 1.5 inches per second |
| Mode: Automatic Scan        | Conversion Units           | Inches  |        | Conversion Units      | Inches  |        | Number of Scans: 95                   |
| Scan Motion: Bi-directional |                            |         |        | Radius In.            | 15.38"  |        | Weld C/L: 72.262"                     |
| Correction: N/A             |                            |         |        |                       |         |        | Elevation/Nozzle C/I: N/A             |

|   |                   |        |             |             |                      |                        |
|---|-------------------|--------|-------------|-------------|----------------------|------------------------|
| Master Acquisition File: DM_Pipe_ID_0_CW_180_CCW_Skew.acq |                   |        |             |             | Calibration Records: | Examination Notes:     |
| Probe   | Channel /Angle(s) | Skew   | Scan Offset | Step Offset |                      | Pipe Diameter = 30.83" |
| Probe 1   | 1-(60-88°L)       | 0°     | + 27.57(in) | - 2.21(in)  | 110005               | Circumference = 96.86" |
| Probe 2   | 2-(60-88°L)       | 180°   | + 37.01(in) | - 2.21(in)  | 110001               |                        |
| N/A   | N/A               | N/A    | N/A         | N/A         | N/A                  | Examination Remarks:   |
| ET Probe 1  | 1-2               | +22.5° | + 5.35(in)  | + 0.00(in)  | ET03-PTB-02          |                        |
| ET Probe 2  | 3-4               | -22.5° | - 5.35(in)  |             |                      |                        |

### Data Analysis

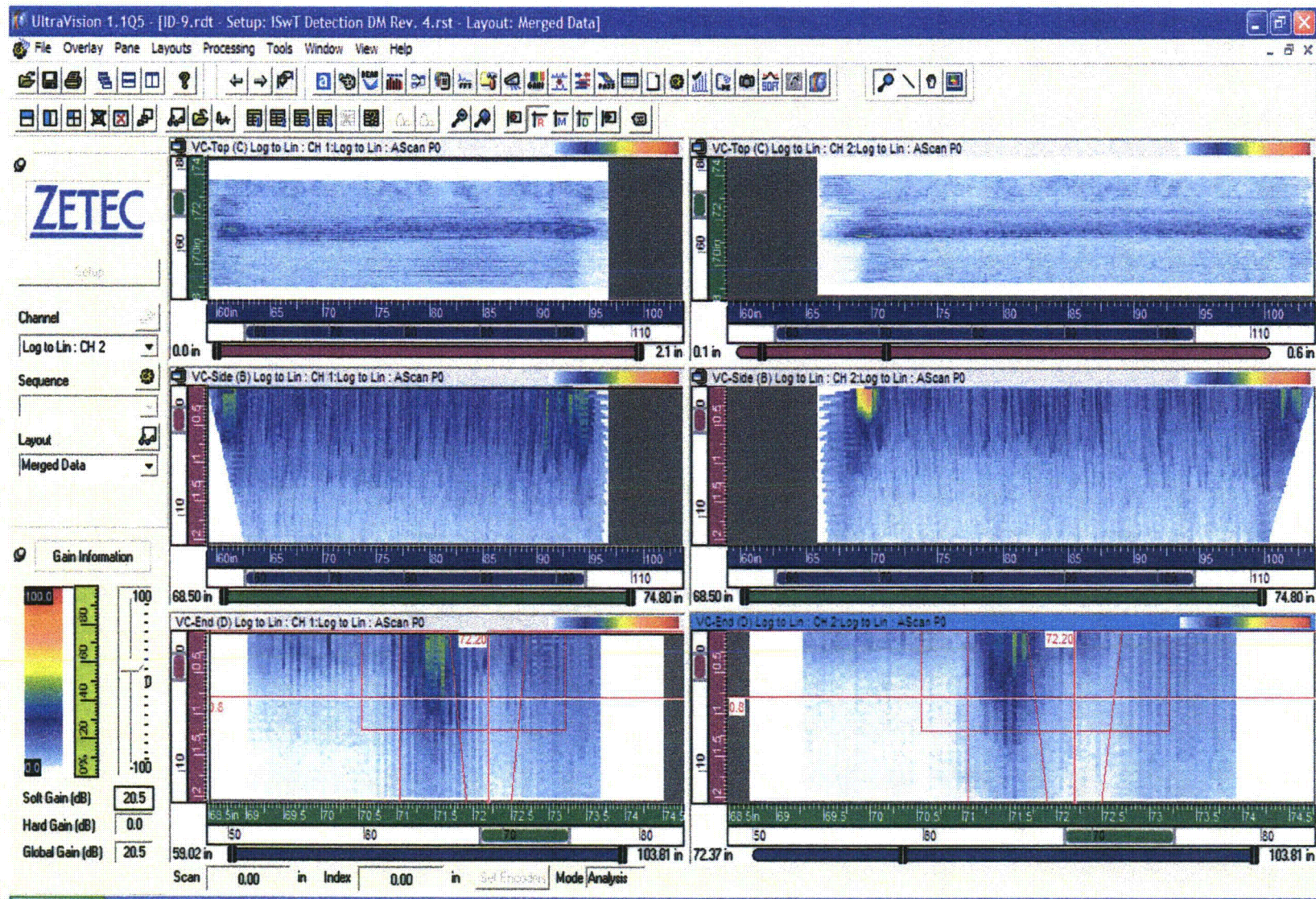
| Increment & Scan Positions Actual |                    |       |               |       | Recordable Indications |                          |                                     | Analyst Remarks                     |   |
|-----------------------------------|--------------------|-------|---------------|-------|------------------------|--------------------------|-------------------------------------|-------------------------------------|---|
| Scan No.(s)                       | Increment Position |       | Scan Position |       |                        | Yes                      | No                                  | N/A                                 | Attachment:   |
|                                   | Start              | Stop  | Start         | Stop  |                        | Channel 1                | Channel 2                           | Channel 3                           |   |
| 1 - 95                            | 71.56              | 76.24 | 32.29         | 65.92 | Probe 1                | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
|                                   |                    |       |               |       |                        | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | Further Evaluation  |
|                                   |                    |       |               |       | Probe 2                | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | Required:   |
|                                   |                    |       |               |       |                        | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
|                                   |                    |       |               |       |                        | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | Archive Media:  |
|                                   |                    |       |               |       | Probe 3                | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> External Hard Drive             |
|                                   |                    |       |               |       |                        | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       | ET Probe 1             | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       | ET Probe 2             | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> CD-ROM                                     |
|                                   |                    |       |               |       | N/A                    | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | DVD-ROM   |

Analyst / SNT Level / Date:

Jesse R. Delgado / III / 18 Nov. 2012



# ID-9 SG A Outlet Nozzle to Safe-End (Cw CCW)





ISWT FORM No. ET 10/08



Project No. 12-0301  
Instrument S/N 131612

EXAMINATION ET-ID-9  
STATION 1

Date: 18 NOV 2012  
CALIBRATION SHEET: ET-03-PTB-001

Setup | Inspect | Analysis

C:\RD\Tech\NM... \DATA\

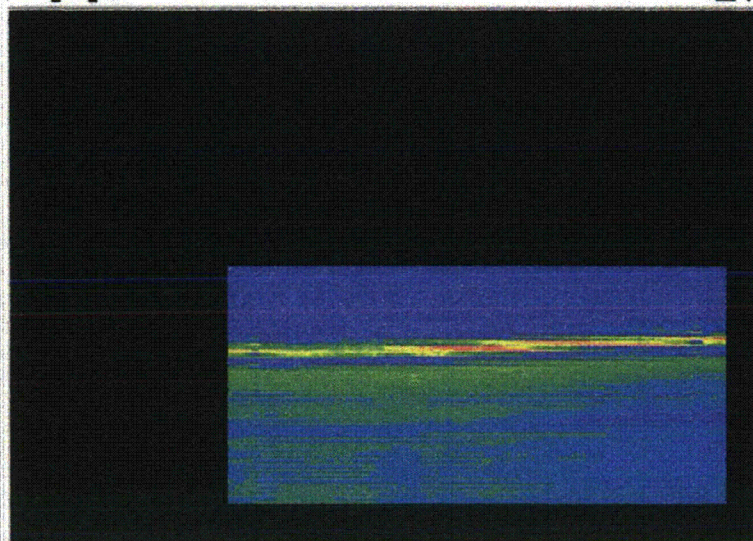
File

- \* Demo RFT 5800 2
- \* ETID10
- \* ETID8\_7162\_7407
- \* ETID8\_72-76
- \* ETID9
- \* ETID\_3
- \* ETID\_4
- \* ETID\_5
- \* pbs12set2
- \* pbs12set4.001
- \* pbs12set4
- \* pbs12set4V1
- \* recms5800 932171
- \* swri clack wha
- \* testID3

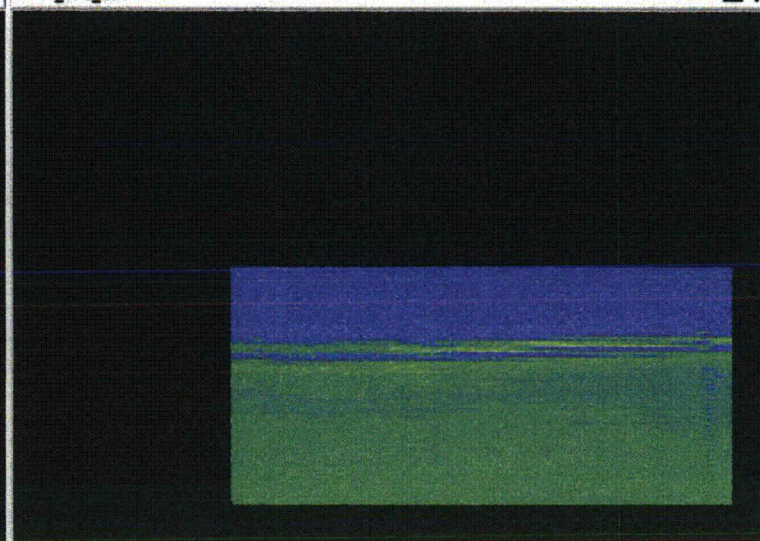
Start

Next

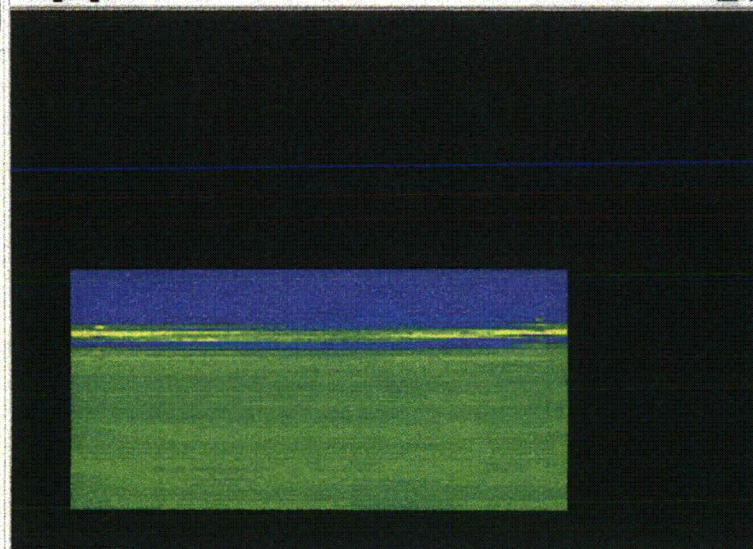
P1\_CH1\_30K



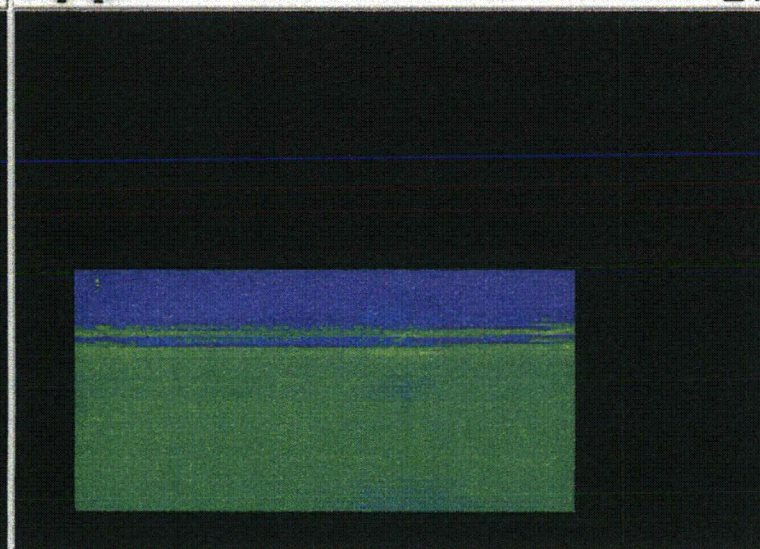
P1\_CH2\_80K



P2\_CH3\_30K



P2\_CH4\_80K



X: -3356.66 in. Δ 43.24 in.

Y: 1894.91 in. Δ 34.60 in.

X: -3356.66 in. Δ 21.62 in.

Enc1 —

Enc2 —





# IHI SOUTHWEST TECHNOLOGIES

## AUTOMATED ULTRASONIC EXAMINATION RECORD

|   |  |  |                               |
|---|--|--|-------------------------------|
| <b>Site/Plant :</b> Point Beach Unit 2                              | <b>Weld Identification:</b> RC-36-MRCL-AII-01A           | <b>Pro/Rev/Chg/ICN:</b> ISWT-PDI-AUT11/2/0/1 | <b>Examination No.:</b> ID-10 |
| <b>Project No.:</b> 12-0301   | <b>Weld Description:</b> A S/G Out Noz-to-SE (240°-365°) | <b>Device Configuration:</b> 136-00045       |                               |
| <b>Mod.Conf.:</b> 138-00032   | <b>Scan Path Drawing:</b> 134-00079                      | <b>Exam Date</b>                             | <b>Examination Time</b>       |
| <b>Data Acquisition Operator (s) / SNT Level:</b> Bryan Wright / II |  | 18 Nov. 2012                                 | <b>Surface Temperature °F</b> |
|   |  | <b>Start</b>                                 | <b>End</b>                    |
|   |  | 0845   | 0929                          |
|   |  | <b>Start</b>                                 | <b>End</b>                    |
|   |  | 94   | 94                            |

### Data Acquisition

| Scan Controller Parameters  | Increment Axis             | Planned | Actual | Scan Axis             | Planned | Actual | Positional Parameters                 |
|-----------------------------|----------------------------|---------|--------|-----------------------|---------|--------|---------------------------------------|
| Controller: SG-NEXT         | Lower Limit                | 71.56   | 71.56  | Lower Limit           | 64.57   | 64.57  | Beam Direction: Cw/Ccw                |
| Scan: X Rotator Drive       | Upper Limit                | 76.24   | 76.24  | Upper Limit           | 98.20   | 98.20  | Probe Type: PA22-001                  |
| Increment: Y Axial Drive    | Inc. Interval (Resolution) | 0.05    |        | DCI (Scan Resolution) | 0.05    |        | Scanning Speed: 1.5 inches per second |
| Mode: Automatic Scan        | Conversion Units           | Inches  |        | Conversion Units      | Inches  |        | Number of Scans: 95                   |
| Scan Motion: Bi-directional |                            |         |        | Radius In.            | 15.38"  |        | Weld C/L: 72.262"                     |
| Correction: N/A             |                            |         |        |                       |         |        | Elevation/Nozzle C/I N/A              |

|  |                          |             |                    |                    |                             |                             |
|--|--------------------------|-------------|--------------------|--------------------|-----------------------------|-----------------------------|
| <b>Master Acquisition File:</b> DM_Pipe_ID_0_CW_180_CCW_Skew.acq |                          |             |                    |                    | <b>Calibration Records:</b> | <b>Examination Notes:</b>   |
| <b>Probe</b>   | <b>Channel /Angle(s)</b> | <b>Skew</b> | <b>Scan Offset</b> | <b>Step Offset</b> |                             | Pipe Diameter = 30.83"      |
| Probe 1  | 1-(60-88°L)              | 0°          | + 27.57(in)        | - 2.21(in)         | 110005                      | Circumference = 96.86"      |
| Probe 2  | 2-(60-88°L)              | 180°        | + 37.01(in)        | - 2.21(in)         | 110001                      |                             |
| N/A  | N/A                      | N/A         | N/A                | N/A                | N/A                         | <b>Examination Remarks:</b> |
| ET Probe 1   | 1-2                      | +22.5°      | + 5.35(in)         | + 0.00(in)         | ET03-PTB-02                 |                             |
| ET Probe 2   | 3-4                      | -22.5°      | - 5.35(in)         |                    |                             |                             |

### Data Analysis

| Increment & Scan Positions Actual |                    |       |               | Recordable Indications |   |                                     | Analyst Remarks                     |   |
|-----------------------------------|--------------------|-------|---------------|------------------------|---|-------------------------------------|-------------------------------------|---|
| Scan No.(s)                       | Increment Position |       | Scan Position |                        | Yes   | No                                  | N/A                                 | Attachment:   |
|                                   | Start              | Stop  | Start         | Stop                   |   |                                     |                                     |   |
| 1 - 95                            | 71.56              | 76.24 | 64.57         | 98.20                  | Channel 1 <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
|                                   |                    |       |               |                        | Channel 2 <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |
|                                   |                    |       |               |                        | Channel 3 <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | Further Evaluation  |
|                                   |                    |       |               |                        | Channel 1 <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | Required:   |
|                                   |                    |       |               |                        | Channel 2 <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
|                                   |                    |       |               |                        | Channel 3 <input type="checkbox"/>              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |
|                                   |                    |       |               |                        | Channel 1 <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | Archive Media:  |
|                                   |                    |       |               |                        | Channel 2 <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> External Hard Drive             |
|                                   |                    |       |               |                        | Channel 3 <input type="checkbox"/>              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |                        | ET Probe 1 Channel 1-2 <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> CD-ROM                                     |
|                                   |                    |       |               |                        | ET Probe 2 Channel 3-4 <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> DVD-ROM                                    |
|                                   |                    |       |               |                        | N/A   | <input type="checkbox"/>            | <input type="checkbox"/>            |   |

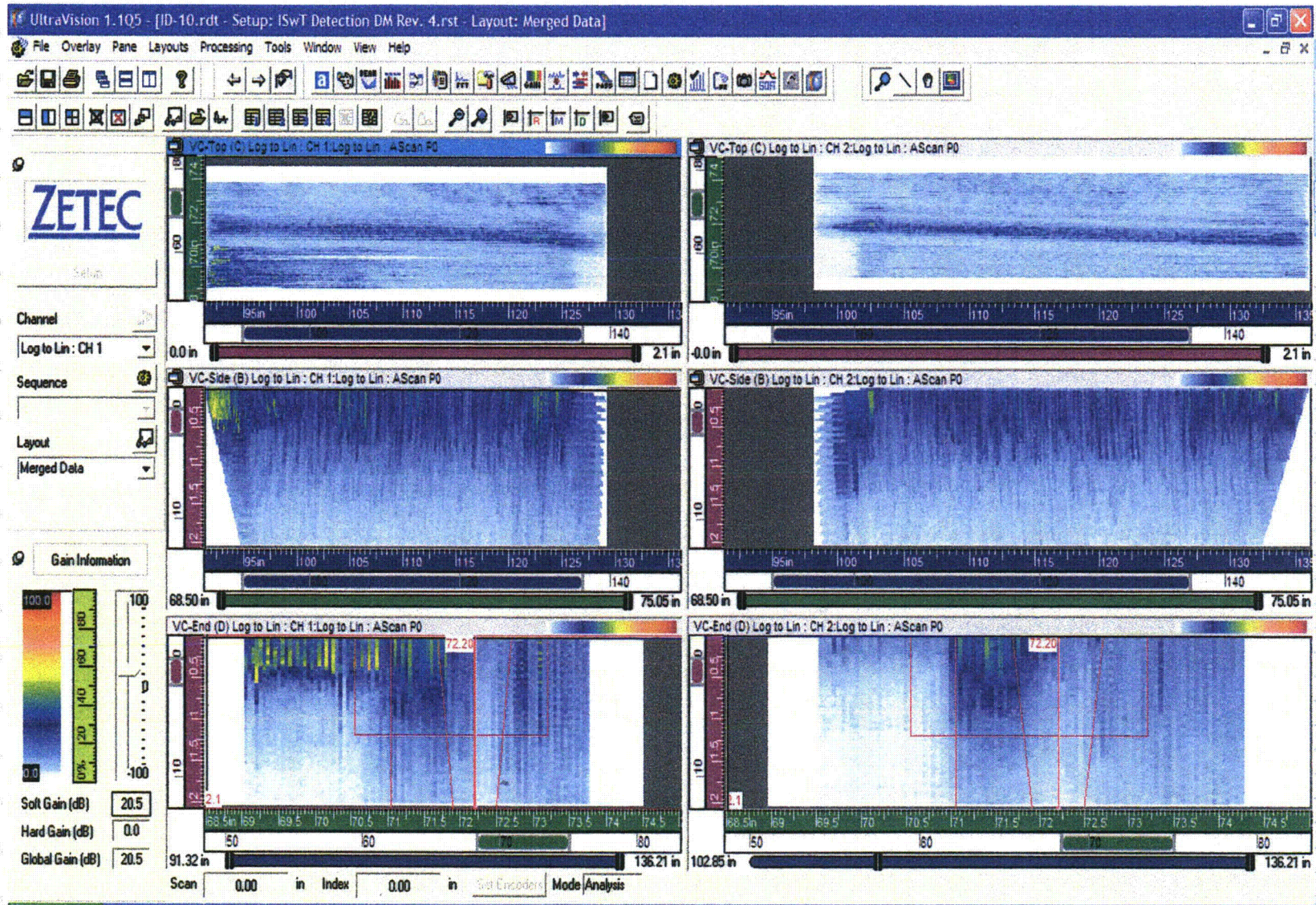
Analyst / SNT Level / Date:

Richard A. Riddles / III / 18 Nov. 2012

*Rela Bas*



### ID-10 SG A Outlet Nozzle to Safe-End (Cw CCW)





# IHI SOUTHWEST TECHNOLOGIES AUTOMATED EDDY CURRENT EXAMINATION RECORD

|  |                    |                        |                                 |                       |                 |                  |      |                        |     |
|--|--------------------|------------------------|---------------------------------|-----------------------|-----------------|------------------|------|------------------------|-----|
| Site/Plant :                               | Point Beach Unit 2 | Weld Identification:   | RC-36-MRCL-AII-01A              | Pro/Rev/Chg/ICN:      | ISWT-AET3/2/0/0 | Examination No.: |      | ID-10                  |     |
| Project No.:                               | 12-0301            | Weld Description:      | A S/G Out Noz-to-SE (240°-365°) | Device Configuration: | 136-00045       |                  |      |                        |     |
| Mod.Conf.:                                 | 138-00032          | Scan Path Drawing:     | 134-00079                       | Exam Date             |                 | Examination Time |      | Surface Temperature °F |     |
| Data Acquisition Operator (s) / SNT Level: |                    | David R. Kleinjan / II |                                 | 18-Nov-12             |                 | Start            | End  | Start                  | End |
|  |                    |                        |                                 |                       |                 | 0845             | 0929 | 94                     | 94  |

### Data Acquisition

| Scan Controller Parameters |                 | Increment Axis     | Planned | Actual | Scan Axis        | Planned | Actual | Positional Parameters |                       |
|----------------------------|-----------------|--------------------|---------|--------|------------------|---------|--------|-----------------------|-----------------------|
| Controller:                | SG-NExT         | Lower Limit        | 71.56   | 71.56  | Lower Limit      | 64.57   | 64.52  | Beam Direction:       | Cw/Ccw                |
| Scan:                      | X Rotator Drive | Upper Limit        | 76.24   | 76.24  | Upper Limit      | 98.20   | 98.20  | ET Probe Size:        | .24 (in)              |
| Increment:                 | Y Axial Drive   | Increment Interval | 0.05    |        | Resolution       | 0.20    |        | Scanning Speed        | 1.5 inches per second |
| Mode:                      | Automatic Scan  | Conversion Units   | Inches  |        | Conversion Units | Inches  |        | Number of Scans:      | 95                    |
| Scan Motion:               | Bi-directional  |                    |         |        | Radius In.       | 15.38"  |        | Weld C/L              | 72.262"               |
| Correction:                | N/A             |                    |         |        |                  |         |        | Elevation/Nozzle C/L  | N/A                   |

### Module Parameters:

|         | Status | Channel(s) | Skew    | Scan Offset | Step Offset | Construction Record | Remarks  |
|---------|--------|------------|---------|-------------|-------------|---------------------|--|
| Probe 1 | On     | 1-2        | + 22.5° | +5.35 (in)  | -2.21 (in.) | ET-03-PTB-002       | Pipe diameter = 30.83"<br>Circumference = 96.86" |
| Probe 2 | On     | 3-4        | - 22.5° | -5.35 (in)  | -2.21 (in.) | ET-03-PTB-002       |  |

|  |  |                      |
|--|--|----------------------|
|  |  | Examination Remarks: |
|--|--|----------------------|

|  |  |  |
|--|--|--|
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## Data Analysis

| Increment & Scan Positions Actual |                    |       |               |       | Recordable Indications |           |                          | Analyst Remarks                     |                                     |   |                                       |
|-----------------------------------|--------------------|-------|---------------|-------|------------------------|-----------|--------------------------|-------------------------------------|-------------------------------------|---|---------------------------------------|
| Scan No.(s)                       | Increment Position |       | Scan Position |       |                        |           | Yes                      | No                                  | N/A                                 | Attachment:<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                      | EXAMINATION C SCAN FOR ALL 4 CHANNELS |
|                                   | Start              | Stop  | Start         | Stop  |                        |           |                          |                                     |                                     |   |                                       |
| 1-95                              | 71.56              | 76.24 | 64.57         | 98.20 | Probe 1                | Channel 1 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | Further Evaluation Required:  |                                       |
|                                   |                    |       |               |       |                        | Channel 2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |                                       |
|                                   |                    |       |               |       | Probe 2                | Channel 3 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No   |                                       |
|                                   |                    |       |               |       |                        | Channel 4 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |                                       |
|                                   |                    |       |               |       | Probe 3                | Channel 5 | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | Archive Media:<br><input checked="" type="checkbox"/> External Hard Drive<br><input type="checkbox"/> CD-ROM<br>DVD-ROM |                                       |
|                                   |                    |       |               |       |                        | Channel 6 | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |                                       |
|                                   |                    |       |               |       | Probe 4                | Channel 7 | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |                                       |
|                                   |                    |       |               |       |                        | Channel 8 | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |                                       |

|   |  |
|---|--|
| Analyst / SNT Level / Date:<br>David R. Kleinjan / II | Reviewed By/Analyst / SNT Level /Signature:<br>William Angell / II |
|---|--|



Project No. 12-0301  
Instrument S/N 131612

EXAMINATION ET-ID-10  
STATION 1

Date: 18 NOV 2012  
CALIBRATION SHEET: ET-03-PTB-001

Setup | Inspect | Analysis

C:\RDTEch\W... \DATA\

File

- \* Demo RFT 5800 2
- \* ETID10
- \* ETID8\_7162\_7407
- \* ETID8\_7276
- \* ETID9
- \* ETID\_3
- \* ETID\_4
- \* ETID\_5
- \* pbst2set2
- \* pbst2set4.001
- \* pbst2set4
- \* pbst2set4V1
- \* recms5800 932171
- \* swi dlock wha
- \* testID3

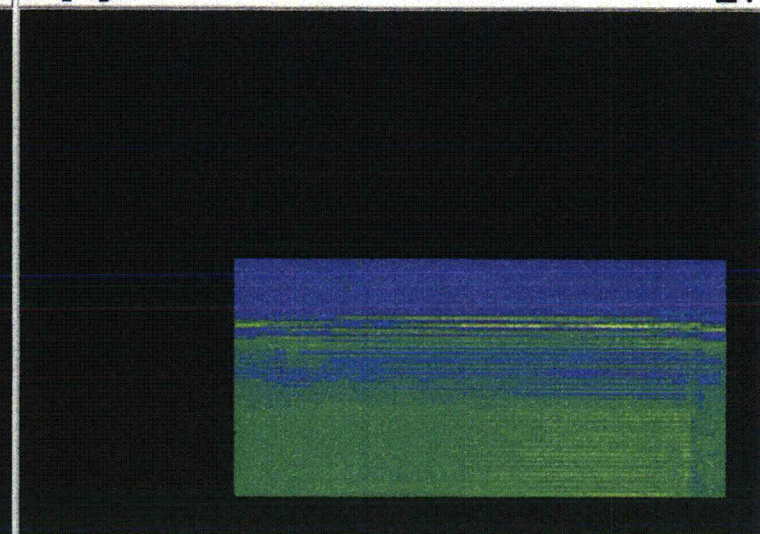
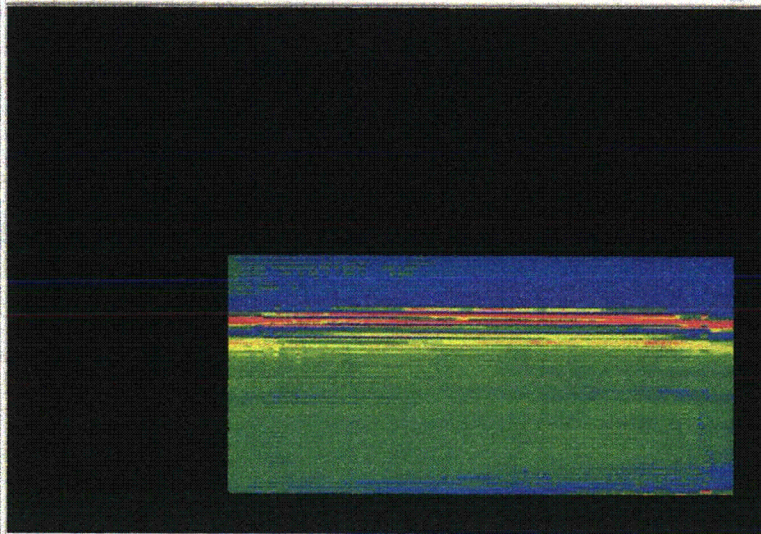
Start

Next

P1\_CH1\_30K



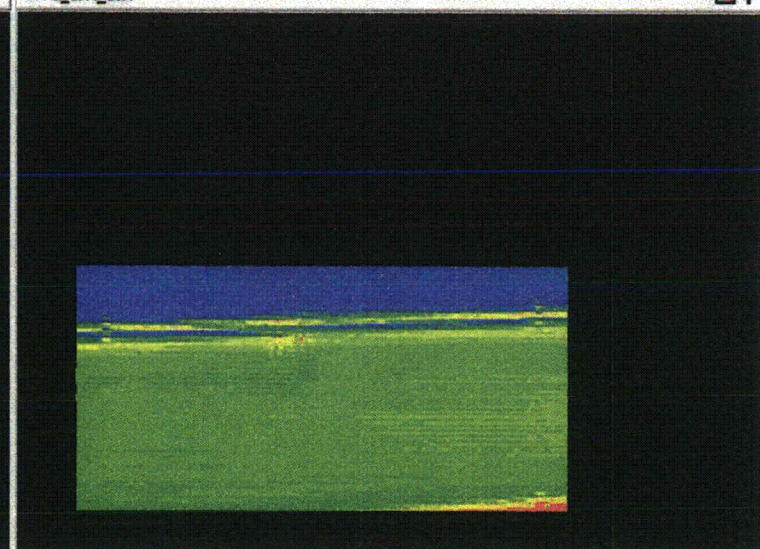
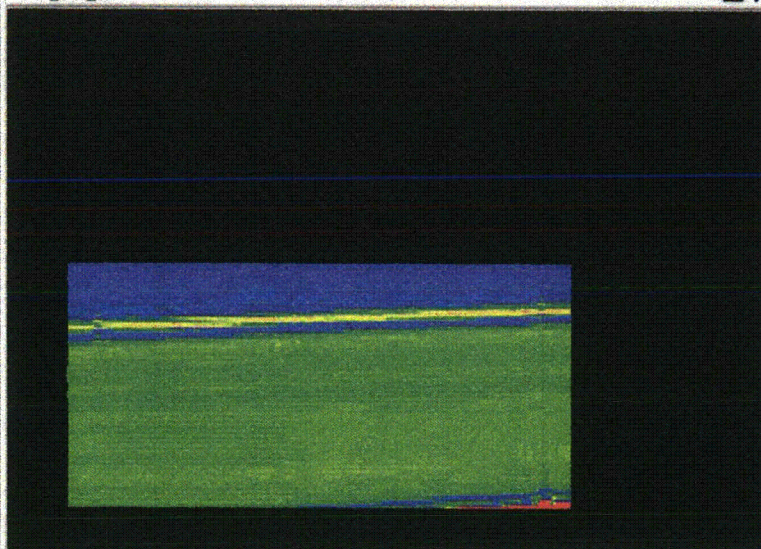
P1\_CH2\_80K



P2\_CH3\_30K



P2\_CH4\_80K



X: -3684.10 in. Δ 43.24 in.

Y: 1727.51 in. Δ 34.60 in.

X: -3684.10 in. Δ 21.62 in.

Enc1 —

Enc2 —





## IHI Southwest Technologies Examination Summary Record

| Utility: NextEra Energy |                      | Site: Point Beach Nuclear Plant Unit 2<br>Outage: U2R32 |                         |                | Summary Sheet No. 00400            |       |                   |
|-------------------------|----------------------|---|-------------------------|----------------|------------------------------------|-------|-------------------|
| System: Steam Generator |                      | Line Subassembly: "B" SG Out Noz-to-SE                  |                         |                | Identification: RC-36-MRCL-BII-01A |       |                   |
| NDE Method              | Proc/Rev/Chg/ICN     | NDE Examination   | Calibrations/heet No's. | Exam Sheet No. | NRI                                | Other | Remarks           |
| AUT                     | ISwT-PDI-AUT11/2/0/1 | UT Probe 1 (60-88")                                     | 110004                  | 16 - 17        | X                                  | -     | UT TWD & AWY Exam |
| AUT                     | ISwT-PDI-AUT11/2/0/1 | UT Probe 2 (60-88")                                     | 110004                  | 16 - 17        | X                                  | -     | UT TWD & AWY Exam |
| AUT                     | ISwT-PDI-AUT11/2/0/1 | UT Probe 1 (60-88")                                     | 110003                  | 18 - 20        | X                                  | -     | UT CW & CCW Exam  |
| AUT                     | ISwT-PDI-AUT11/2/0/1 | UT Probe 2 (60-88")                                     | 110003                  | 18 - 20        | X                                  | -     | UT CW & CCW Exam  |
| AET                     | ISwT-PDI-AET3/2/0/0  | ET Probe 1  | ET03-PTB-001            | 18 - 20        | X                                  | -     | Eddy Current Exam |
| AET                     | ISwT-PDI-AET3/2/0/0  | ET Probe 2  | ET03-PTB-001            | 18 - 20        | X                                  | -     | Eddy Current Exam |

### Examination Summary:

This weld was examined from the inside surface using SG-NExT, T-III, & MS5800 examination equipment.  
The examination coverage was 100%.

|                                       |                |                                    |               |
|---------------------------------------|----------------|------------------------------------|---------------|
| Prepared By: Steven J. Todd           |                |                                    |               |
| Signature: <i>Steven J. Todd</i>      | Date: 11/22/12 |                                    |               |
| ISwT Project Manager                  |                |                                    |               |
| Reviewed By: <i>William A. Jensen</i> |                | Reviewed By: <i>Jeff Bukawicki</i> |               |
| Signature: <i>William A. Jensen</i>   | Date: 11-23-12 | Signature: <i>Jeff Bukawicki</i>   | Date: 4/28/12 |
| NextEra Energy Point Beach            |                | ANII                               |               |





# IHI SOUTHWEST TECHNOLOGIES

## AUTOMATED ULTRASONIC EXAMINATION RECORD

|  |  |  |                               |
|--|--|--|-------------------------------|
| <b>Site/Plant :</b> Point Beach Unit 2                             | <b>Weld Identification:</b> RC-36-MRCL-BII-01A         | <b>Pro/Rev/Chg/ICN:</b> ISWT-PDI-AUT11/2/0/1 | <b>Examination No.:</b> ID-16 |
| <b>Project No.:</b> 12-0301  | <b>Weld Description:</b> B S/G Out Noz-to-SE (0°-185°) | <b>Device Configuration:</b> 136-00045       |                               |
| <b>Mod.Conf.:</b> 138-00032  | <b>Scan Path Drawing:</b> 134-00079                    | <b>Exam Date</b>                             | <b>Examination Time</b>       |
| <b>Data Acquisition Operator (s) / SNT Level:</b> Jeremy Howe / II |  | 18 Nov. 2012                                 | <b>Surface Temperature °F</b> |
|  |  | <b>Start</b>                                 | <b>End</b>                    |
|  |  | 1206   | 1258                          |
|  |  | <b>Start</b>                                 | <b>End</b>                    |
|  |  | 94   | 94                            |

### Data Acquisition

| Scan Controller Parameters |                 | Increment Axis             | Planned | Actual | Scan Axis             | Planned | Actual | Positional Parameters |                       |
|----------------------------|-----------------|----------------------------|---------|--------|-----------------------|---------|--------|-----------------------|-----------------------|
| Controller:                | SG-NExT         | Lower Limit                | 70.75   | 70.75  | Lower Limit           | 0.00    | 0.00   | Beam Direction:       | Twd/Awy               |
| Scan:                      | X Rotator Drive | Upper Limit                | 80.35   | 80.35  | Upper Limit           | 49.77   | 49.77  | Probe Type:           | PA22-001              |
| Increment:                 | Y Axial Drive   | Inc. Interval (Resolution) | 0.15    |        | DCI (Scan Resolution) | 0.10    |        | Scanning Speed:       | 2.0 inches per second |
| Mode:                      | Automatic Scan  | Conversion Units           | Inches  |        | Conversion Units      | Inches  |        | Number of Scans:      | 65                    |
| Scan Motion:               | Bi-directional  |                            |         |        | Radius In.            | 15.38"  |        | Weld C/L:             | 72.262"               |
| Correction:                | N/A             |                            |         |        |                       |         |        | Elevation/Nozzle C/I  | N/A                   |

| <b>Master Acquisition File:</b> DM_Pipe_ID_90_AWY_270_TWD_Skew.acq |                    |      |             |             | <b>Calibration Records:</b> | <b>Examination Notes:</b>   |
|--|--------------------|------|-------------|-------------|-----------------------------|-----------------------------|
| Probe  | Channel /Angle(s)  | Skew | Scan Offset | Step Offset |                             | Pipe Diameter = 30.83"      |
| Probe 1  | 1-(60-88°L)        | 90°  | + 69.92(in) | - 1.52(in)  | 110004                      | Circumference = 96.86"      |
| Probe 2  | 2-(60-88°L)        | 270° | + 59.22(in) | - 2.90(in)  | 110004                      |                             |
| Probe 3  | 3-(0°Profilometry) | 0°   | + 0.00(in)  | + 0.00(in)  | 110004                      | <b>Examination Remarks:</b> |
| N/A  | N/A                | N/A  | N/A         | N/A         | N/A                         |                             |

### Data Analysis

| Increment & Scan Positions Actual |                    |       |               |       | Recordable Indications |                                      |                                     | Analyst Remarks                     |   |
|-----------------------------------|--------------------|-------|---------------|-------|------------------------|--------------------------------------|-------------------------------------|-------------------------------------|---|
| Scan No.(s)                       | Increment Position |       | Scan Position |       |                        | Yes                                  | No                                  | N/A                                 | Attachment:   |
|                                   | Start              | Stop  | Start         | Stop  |                        |                                      |                                     |                                     |   |
| 1-65                              | 70.75              | 80.35 | 0.00          | 49.77 | Probe 1                | Channel 1 <input type="checkbox"/>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
|                                   |                    |       |               |       |                        | Channel 2 <input type="checkbox"/>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |
|                                   |                    |       |               |       |                        | Channel 3 <input type="checkbox"/>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |
|                                   |                    |       |               |       | Probe 2                | Channel 1 <input type="checkbox"/>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | Further Evaluation Required:  |
|                                   |                    |       |               |       |                        | Channel 2 <input type="checkbox"/>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |
|                                   |                    |       |               |       |                        | Channel 3 <input type="checkbox"/>   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
|                                   |                    |       |               |       | Probe 3                | Channel 1 <input type="checkbox"/>   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | Archive Media:  |
|                                   |                    |       |               |       |                        | Channel 2 <input type="checkbox"/>   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       |                        | Channel 3 <input type="checkbox"/>   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> External Hard Drive             |
|                                   |                    |       |               |       | ET Probe 1             | Channel 1-2 <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       | ET Probe 2             | Channel 3-4 <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> CD-ROM                                     |
|                                   |                    |       |               |       | N/A                    | N/A <input type="checkbox"/>         | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | DVD-ROM   |

|                                    |   |             |
|------------------------------------|---|-------------|
| <b>Analyst / SNT Level / Date:</b> | Richard A. Riddles / III / 18 Nov. 2012 | Reel a Rose |
|------------------------------------|---|-------------|





# IHI SOUTHWEST TECHNOLOGIES

## AUTOMATED ULTRASONIC EXAMINATION RECORD

|   |   |                                       |  |
|---|---|---------------------------------------|--|
| Site/Plant : Point Beach Unit 2                             | Weld Identification: RC-36-MRCL-BII-01A           | Pro/Rev/Chg/ICN: ISwT-PDI-AUT11/2/0/1 | Examination No.: ID-17                   |
| Project No.: 12-0301  | Weld Description: B S/G Out Noz-to-SE (180°-365°) | Device Configuration: 136-00045       |  |
| Mod.Conf.: 138-00032  | Scan Path Drawing: 134-00079                      | Exam Date: 18 Nov. 2012               | Examination Time: Start 1302, End 1356   |
| Data Acquisition Operator (s) / SNT Level: Jeremy Howe / II |   |                                       | Surface Temperature °F: Start 94, End 94 |

### Data Acquisition

| Scan Controller Parameters  | Increment Axis             | Planned | Actual | Scan Axis             | Planned | Actual | Positional Parameters                 |
|-----------------------------|----------------------------|---------|--------|-----------------------|---------|--------|---------------------------------------|
| Controller: SG-NExT         | Lower Limit                | 70.75   | 70.75  | Lower Limit           | 48.43   | 48.43  | Beam Direction: Twd/Awy               |
| Scan: X Rotator Drive       | Upper Limit                | 80.35   | 80.35  | Upper Limit           | 98.20   | 98.20  | Probe Type: PA22-001                  |
| Increment: Y Axial Drive    | Inc. Interval (Resolution) | 0.15    |        | DCI (Scan Resolution) | 0.10    |        | Scanning Speed: 2.0 inches per second |
| Mode: Automatic Scan        | Conversion Units           | Inches  |        | Conversion Units      | Inches  |        | Number of Scans: 65                   |
| Scan Motion: Bi-directional |                            |         |        | Radius In.            | 15.38"  |        | Weld C/L: 72.262"                     |
| Correction: N/A             |                            |         |        |                       |         |        | Elevation/Nozzle C/I: N/A             |

| Master Acquisition File: DM_Pipe_ID_90_AWY_270_TWD_Skew.acq |                    |      |             |             | Calibration Records: | Examination Notes:<br>Pipe Diameter = 30.83"<br>Circumference = 96.86" |
|---|--------------------|------|-------------|-------------|----------------------|--|
| Probe   | Channel /Angle(s)  | Skew | Scan Offset | Step Offset |                      |  |
| Probe 1   | 1-(60-88°L)        | 90°  | + 69.92(in) | - 1.52(in)  | 110004               |  |
| Probe 2   | 2-(60-88°L)        | 270° | + 59.22(in) | - 2.90(in)  | 110004               |  |
| Probe 3   | 3-(0°Profilometry) | 0°   | + 0.00(in)  | + 0.00(in)  | 110004               |  |
| N/A   | N/A                | N/A  | N/A         | N/A         | N/A                  |  |

### Data Analysis

| Increment & Scan Positions Actual |                    |       |               |       | Recordable Indications |                          |                                     | Analyst Remarks                     |  |
|-----------------------------------|--------------------|-------|---------------|-------|------------------------|--------------------------|-------------------------------------|-------------------------------------|--|
| Scan No.(s)                       | Increment Position |       | Scan Position |       |                        | Yes                      | No                                  | N/A                                 | Attachment:<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No   |
|                                   | Start              | Stop  | Start         | Stop  |                        | Channel 1                | Channel 2                           | Channel 3                           |  |
| 1-65                              | 70.75              | 80.35 | 48.43         | 98.20 | Probe 1                | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | Further Evaluation Required:<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  |
|                                   |                    |       |               |       | Probe 2                | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |  |
|                                   |                    |       |               |       | Probe 3                | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |  |
|                                   |                    |       |               |       | ET Probe 1             | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | Archive Media:<br><input checked="" type="checkbox"/> External Hard Drive<br><input type="checkbox"/> CD-ROM<br><input type="checkbox"/> DVD-ROM |
|                                   |                    |       |               |       | ET Probe 2             | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |  |
|                                   |                    |       |               |       | N/A                    | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |  |

|                             |   |  |
|-----------------------------|---|--|
| Analyst / SNT Level / Date: | Richard A. Riddles / III / 18 Nov. 2012 |  |
|-----------------------------|---|--|





# IHI SOUTHWEST TECHNOLOGIES

## AUTOMATED ULTRASONIC EXAMINATION RECORD

|  |   |                                       |  |
|--|---|---------------------------------------|--|
| Site/Plant : Point Beach Unit 2                              | Weld Identification: RC-36-MRCL-BII-01A         | Pro/Rev/Chg/ICN: ISWT-PDI-AUT11/2/0/1 | Examination No.: ID-18                   |
| Project No.: 12-0301   | Weld Description: B S/G Out Noz-to-SE (0°-125°) | Device Configuration: 136-00045       |  |
| Mod.Conf.: 138-00032   | Scan Path Drawing: 134-00079                    | Exam Date: 18 Nov. 2012               | Examination Time: Start 0915, End 1014   |
| Data Acquisition Operator (s) / SNT Level: Bryan Wright / II |   |                                       | Surface Temperature °F: Start 94, End 94 |

### Data Acquisition

| Scan Controller Parameters |                 | Increment Axis             | Planned | Actual | Scan Axis             | Planned | Actual | Positional Parameters |                       |
|----------------------------|-----------------|----------------------------|---------|--------|-----------------------|---------|--------|-----------------------|-----------------------|
| Controller:                | SG-NExT         | Lower Limit                | 71.56   | 71.56  | Lower Limit           | 0.00    | 0.00   | Beam Direction:       | Cw/Ccw                |
| Scan:                      | X Rotator Drive | Upper Limit                | 76.24   | 76.24  | Upper Limit           | 33.63   | 33.63  | Probe Type:           | PA22-001              |
| Increment:                 | Y Axial Drive   | Inc. Interval (Resolution) | 0.05    |        | DCI (Scan Resolution) | 0.05    |        | Scanning Speed:       | 1.5 inches per second |
| Mode:                      | Automatic Scan  | Conversion Units           | Inches  |        | Conversion Units      | Inches  |        | Number of Scans:      | 95                    |
| Scan Motion:               | Bi-directional  |                            |         |        | Radius In.            | 15.38"  |        | Weld C/L:             | 72.262"               |
| Correction:                | N/A             |                            |         |        |                       |         |        | Elevation/Nozzle C/I  | N/A                   |

| Master Acquisition File: DM_Pipe_ID_0_CW_180_CCW_Skew.acq |                    |        |             |             | Calibration Records: | Examination Notes:     |
|---|--------------------|--------|-------------|-------------|----------------------|------------------------|
| Probe   | Channel / Angle(s) | Skew   | Scan Offset | Step Offset |                      | Pipe Diameter = 30.83" |
| Probe 1   | 1-(60-88°L)        | 0°     | + 27.57(in) | - 2.21(in)  | 110003               | Circumference = 96.86" |
| Probe 2   | 2-(60-88°L)        | 180°   | + 37.01(in) | - 2.21(in)  | 110003               |                        |
| N/A   | N/A                | N/A    | N/A         | N/A         | N/A                  | Examination Remarks:   |
| ET Probe 1  | 1-2                | +22.5° | + 5.35(in)  | + 0.00(in)  | ET03-PTB-01          |                        |
| ET Probe 2  | 3-4                | -22.5° | - 5.35(in)  |             |                      |                        |

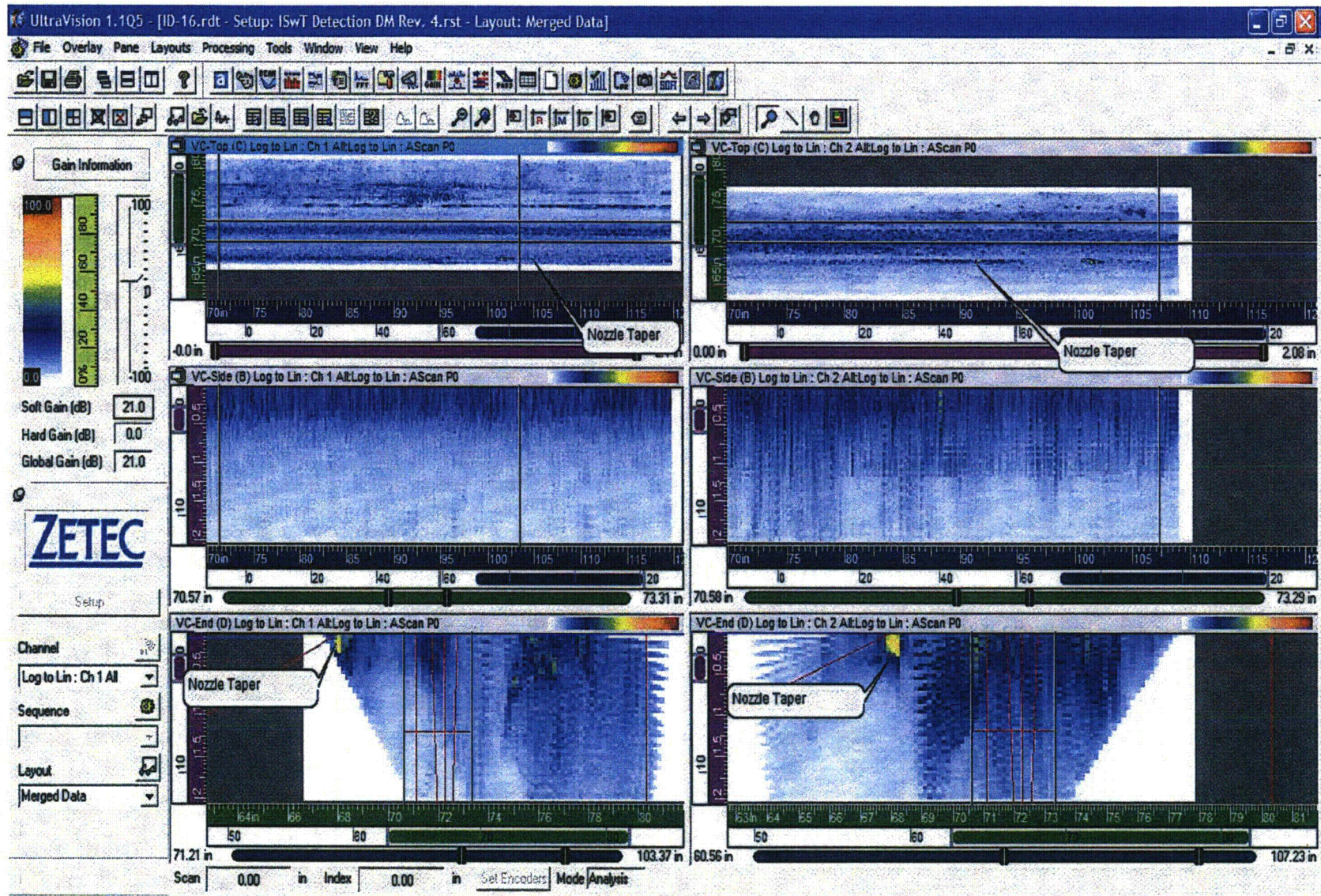
### Data Analysis

| Increment & Scan Positions Actual |                    |       |               |       | Recordable Indications |                          |                                     | Analyst Remarks                     |   |
|-----------------------------------|--------------------|-------|---------------|-------|------------------------|--------------------------|-------------------------------------|-------------------------------------|---|
| Scan No.(s)                       | Increment Position |       | Scan Position |       |                        | Yes                      | No                                  | N/A                                 | Attachment:   |
|                                   | Start              | Stop  | Start         | Stop  |                        | Channel 1                | Channel 2                           | Channel 3                           |   |
| 1 - 95                            | 71.56              | 76.24 | 0.00          | 33.63 | Probe 1                | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
|                                   |                    |       |               |       |                        | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | Further Evaluation Required:  |
|                                   |                    |       |               |       | Probe 2                | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |
|                                   |                    |       |               |       |                        | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |
|                                   |                    |       |               |       |                        | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
|                                   |                    |       |               |       | Probe 3                | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       |                        | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       | ET Probe 1             | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | Archive Media:  |
|                                   |                    |       |               |       | ET Probe 2             | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       | N/A                    | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       |                        | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> External Hard Drive             |
|                                   |                    |       |               |       |                        |                          |                                     |                                     | <input type="checkbox"/> CD-ROM                                     |
|                                   |                    |       |               |       |                        |                          |                                     |                                     | <input type="checkbox"/> DVD-ROM                                    |

|   |
|---|
| Analyst / SNT Level / Date: Richard A. Riddles / III / 18 Nov. 2012 |
|---|

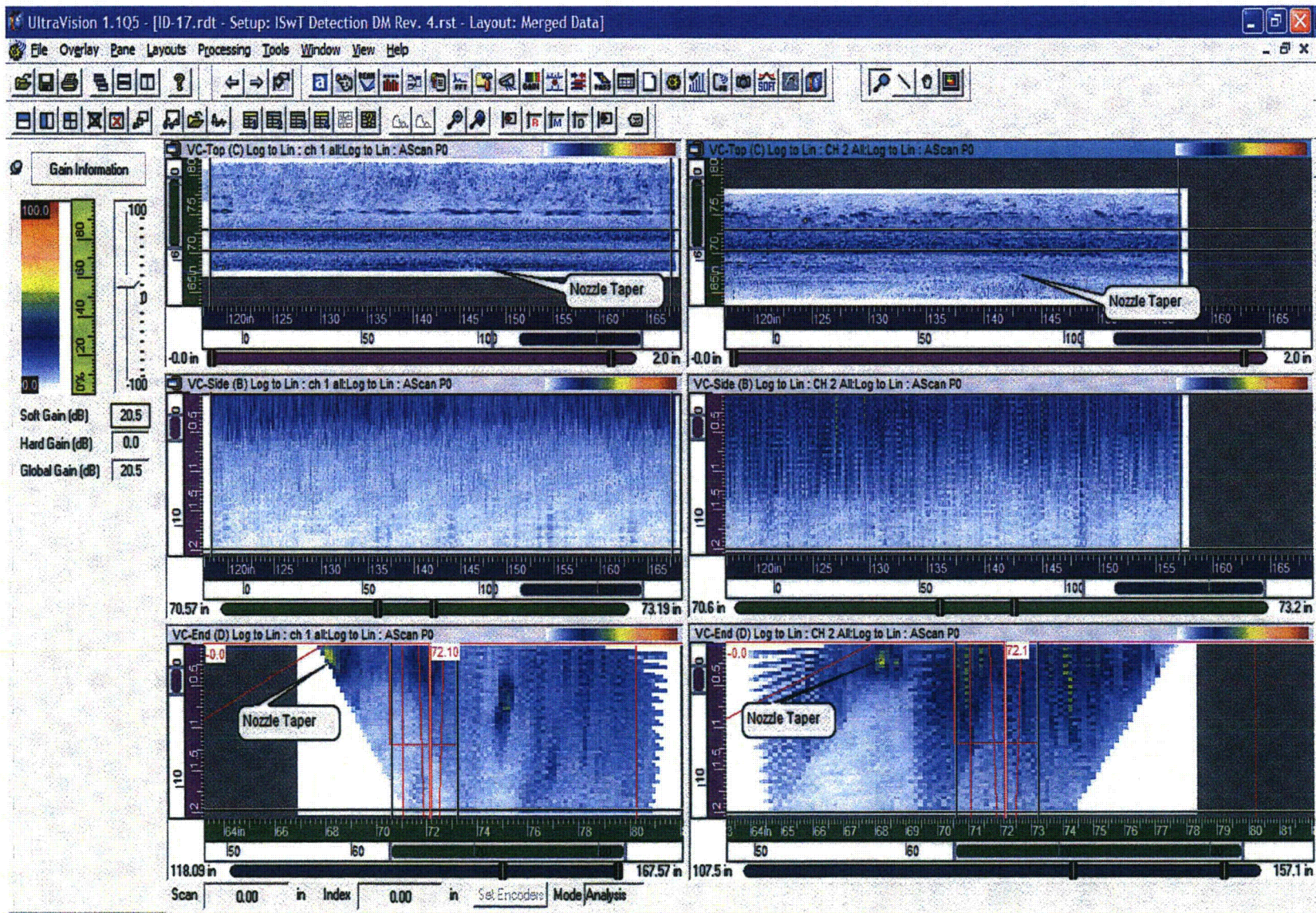


# ID-16 SG B Outlet Nozzle to Safe-End (Away Towards)



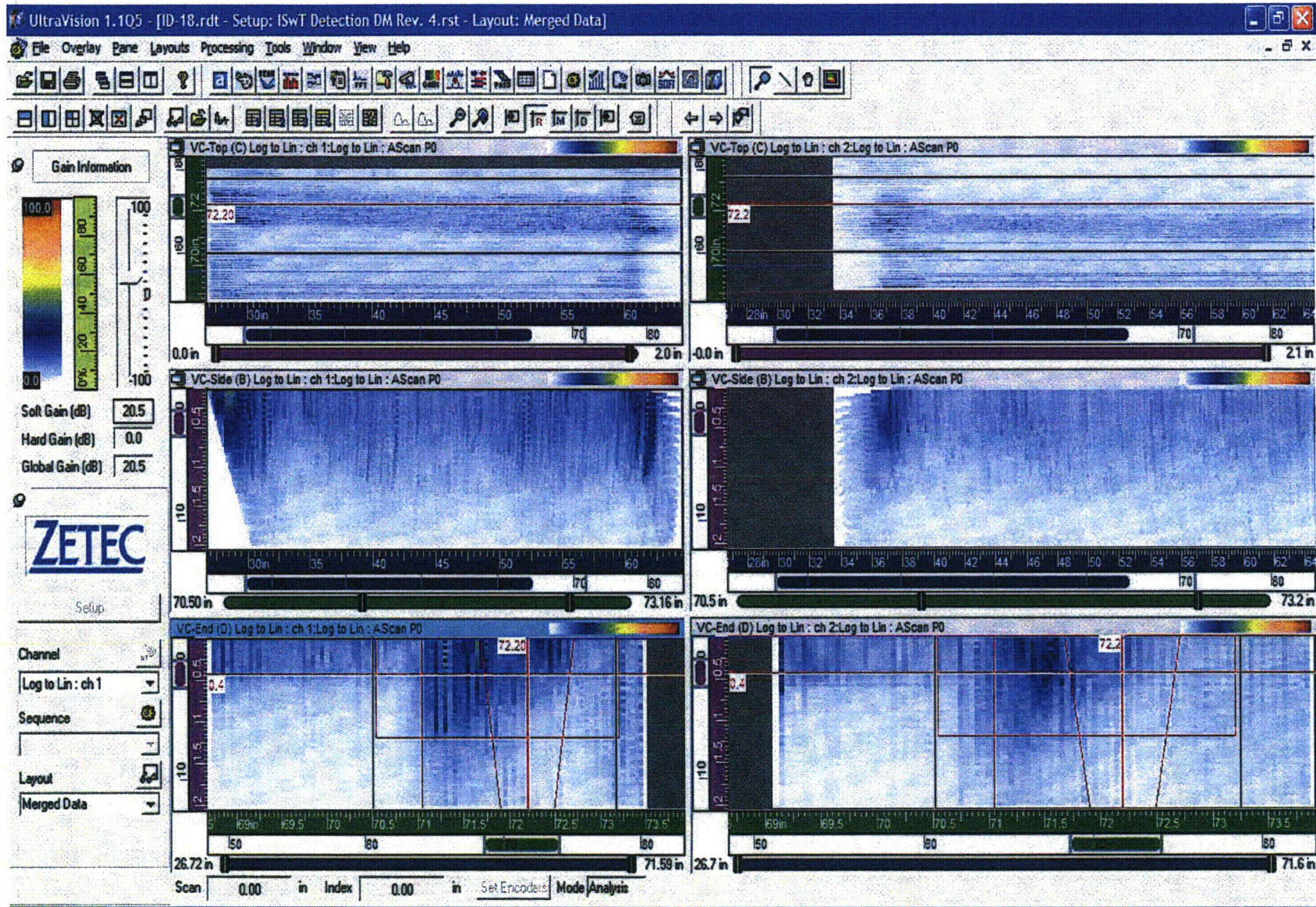


# ID-17 SG B Outlet Nozzle to Safe-End (Away Towards)





# ID-18 SG B Outlet Nozzle to Safe-End (Cw CCW)





The screenshot displays the UltraVision 1.105 software interface, which is used for processing and analyzing ultrasonic data. The interface includes a menu bar (File, Overlay, Pane, Layouts, Processing, Tools, Window, View, Help) and a toolbar with various icons for file operations, processing, and viewing.

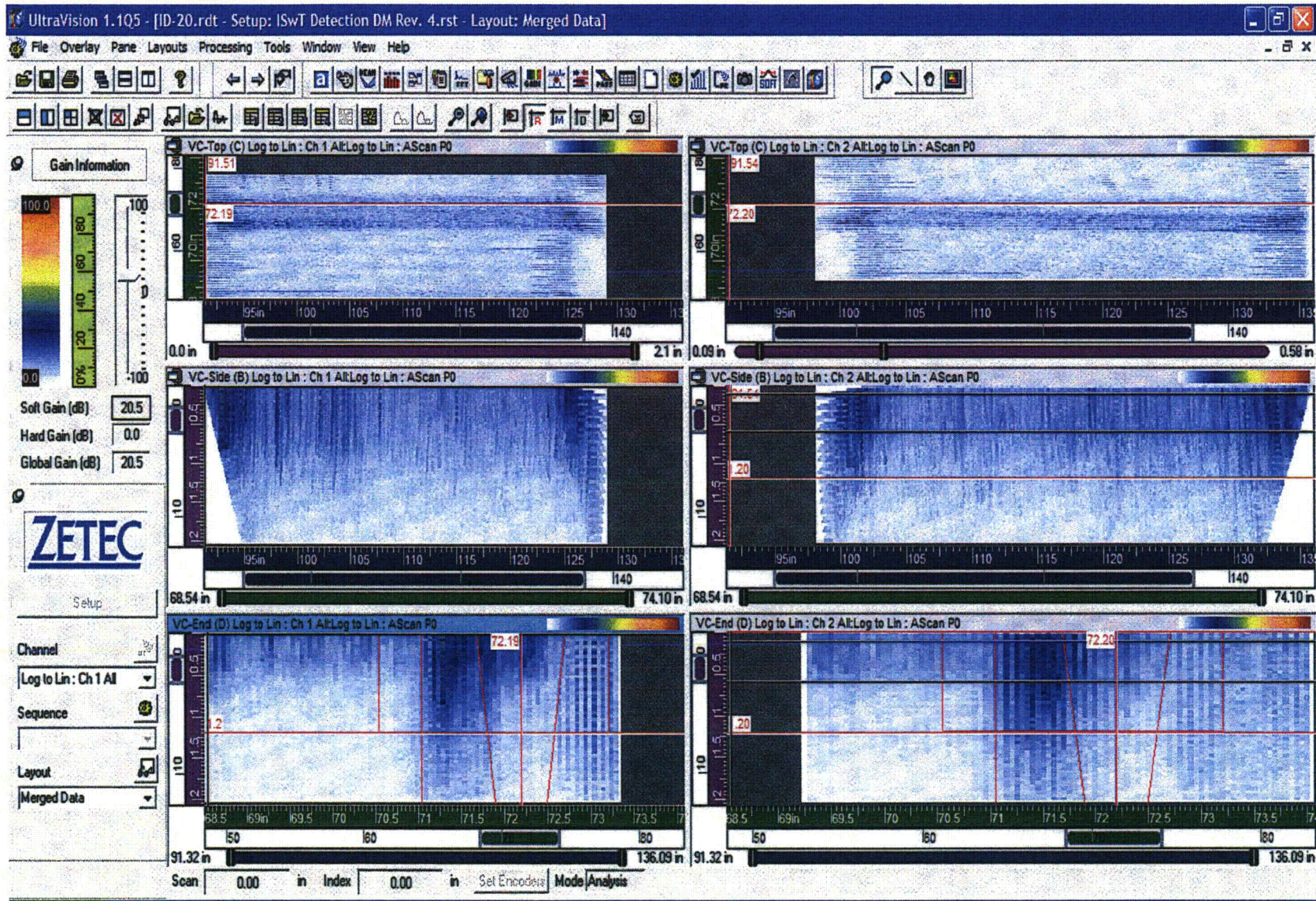
On the left side, there is a "Gain Information" panel showing a color scale from 0.00 to 100.00 dB. Below this, the "Soft Gain (dB)" is set to 20.5, "Hard Gain (dB)" is 0.0, and "Global Gain (dB)" is 20.5. The ZETEC logo is also visible.

The main display area contains four plots arranged in a 2x2 grid, all showing "Log to Lin : ch 1:Log to Lin : AScan P0" data. The top-left plot is labeled "VC-Top (C) Log to Lin : ch 1:Log to Lin : AScan P0" and shows a depth range from 0.0 in to 2.1 in. The top-right plot is labeled "VC-Top (C) Log to Lin : ch 2:Log to Lin : AScan P0" and shows a depth range from 0.09 in to 0.58 in. The bottom-left plot is labeled "VC-Side (B) Log to Lin : ch 1:Log to Lin : AScan P0" and shows a depth range from 70.52 in to 73.21 in. The bottom-right plot is labeled "VC-Side (B) Log to Lin : ch 2:Log to Lin : AScan P0" and shows a depth range from 70.53 in to 73.20 in.

Each plot has a color scale on the left side, ranging from 0 to 100. The plots show a series of horizontal lines, indicating the presence of defects or features in the material being scanned. The bottom of the interface includes a "Scan" section with "0.00 in Index" and "0.00 in Set Encoders" buttons, and a "Mode Analysis" button.



# ID-20 SG B Outlet Nozzle to Safe-End (Cw CCW)





## IHI SOUTHWEST TECHNOLOGIES

### AUTOMATED EDDY CURRENT EXAMINATION RECORD

|  |  |   |                               |            |
|--|--|---|-------------------------------|------------|
| <b>Site/Plant :</b> Point Beach Unit 2                                   | <b>Weld Identification:</b> RC-36-MRCL-BII-01A         | <b>Pro/Rev/Chg/ICN:</b> ISWT-AET3/2/0/0 | <b>Examination No.:</b> ID-18 |            |
| <b>Project No.:</b> 12-0301  | <b>Weld Description:</b> B S/G Out Noz-to-SE (0°-125°) | <b>Device Configuration:</b> 136-00045  |                               |            |
| <b>Mod.Conf.:</b> 138-00032  | <b>Scan Path Drawing:</b> 134-00079                    | <b>Exam Date</b>                        | <b>Examination Time</b>       |            |
| <b>Data Acquisition Operator (s) / SNT Level:</b> David R. Kleinjan / II |  | 18-Nov-12                               | <b>Start</b>                  | <b>End</b> |
|  |  |   | 0915                          | 1014       |
|  |  |   | <b>Start</b>                  | <b>End</b> |
|  |  |   | 94                            | 94         |

## Data Acquisition

| Scan Controller Parameters |                 | Increment Axis     | Planned | Actual | Scan Axis        | Planned | Actual | Positional Parameters |                       |
|----------------------------|-----------------|--------------------|---------|--------|------------------|---------|--------|-----------------------|-----------------------|
| Controller:                | SG-NEXT         | Lower Limit        | 71.56   | 71.56  | Lower Limit      | 0.00    | 0.00   | Beam Direction:       | Cw/Ccw                |
| Scan:                      | X Rotator Drive | Upper Limit        | 76.24   | 76.24  | Upper Limit      | 33.63   | 33.63  | ET Probe Size:        | .24 (in)              |
| Increment:                 | Y Axial Drive   | Increment Interval | 0.05    |        | Resolution       | 0.20    |        | Scanning Speed        | 1.5 inches per second |
| Mode:                      | Automatic Scan  | Conversion Units   | Inches  |        | Conversion Units | Inches  |        | Number of Scans:      | 95                    |
| Scan Motion:               | Bi-directional  |                    |         |        | Radius In.       | 15.38"  |        | Weld C/L              | 72.262"               |
| Correction:                | N/A             |                    |         |        |                  |         |        | Elevation/Nozzle C/L  | N/A                   |

**Module Parameters:**

|         | Status | Channel(s) | Skew    | Scan Offset | Step Offset |
|---------|--------|------------|---------|-------------|-------------|
| Probe 1 | On     | 1-2        | + 22.5° | +5.35 (in)  | -2.21 (in.) |
| Probe 2 | On     | 3-4        | - 22.5° | -5.35 (in)  | -2.21 (in.) |

**Calibration Records:**

|               |                        |
|---------------|------------------------|
|               | Pipe diameter = 30.83" |
| ET-03-PTB-001 | Circumference = 96.86" |
| ET-03-PTB-001 |                        |

|                             |  |
|-----------------------------|--|
| <b>Examination Remarks:</b> |  |
|-----------------------------|--|

|  |  |  |
|--|--|--|
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## Data Analysis

| Increment & Scan Positions Actual |                    |       |               |       | Recordable Indications |           |                          |                                     | Analyst Remarks                     |   |                                       |
|-----------------------------------|--------------------|-------|---------------|-------|------------------------|-----------|--------------------------|-------------------------------------|-------------------------------------|---|---------------------------------------|
| Scan No.(s)                       | Increment Position |       | Scan Position |       |                        |           | Yes                      | No                                  | N/A                                 | Attachment:<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No                                      | EXAMINATION C SCAN FOR ALL 4 CHANNELS |
|                                   | Start              | Stop  | Start         | Stop  |                        |           |                          |                                     |                                     |   |                                       |
| 1-95                              | 71.56              | 76.24 | 0.00          | 33.63 | Probe 1                | Channel 1 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | Further Evaluation Required:  |                                       |
|                                   |                    |       |               |       |                        | Channel 2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |                                       |
|                                   |                    |       |               |       | Probe 2                | Channel 3 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No   |                                       |
|                                   |                    |       |               |       |                        | Channel 4 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |                                       |
|                                   |                    |       |               |       | Probe 3                | Channel 5 | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | Archive Media:<br><input checked="" type="checkbox"/> External Hard Drive<br><input type="checkbox"/> CD-ROM<br>DVD-ROM |                                       |
|                                   |                    |       |               |       |                        | Channel 6 | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |                                       |
|                                   |                    |       |               |       | Probe 4                | Channel 7 | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |                                       |
|                                   |                    |       |               |       |                        | Channel 8 | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |                                       |

Analyst / SNT Level / Date:

David R. Kleinjan / II

Reviewed By/Analyst / SNT Level /Signature:

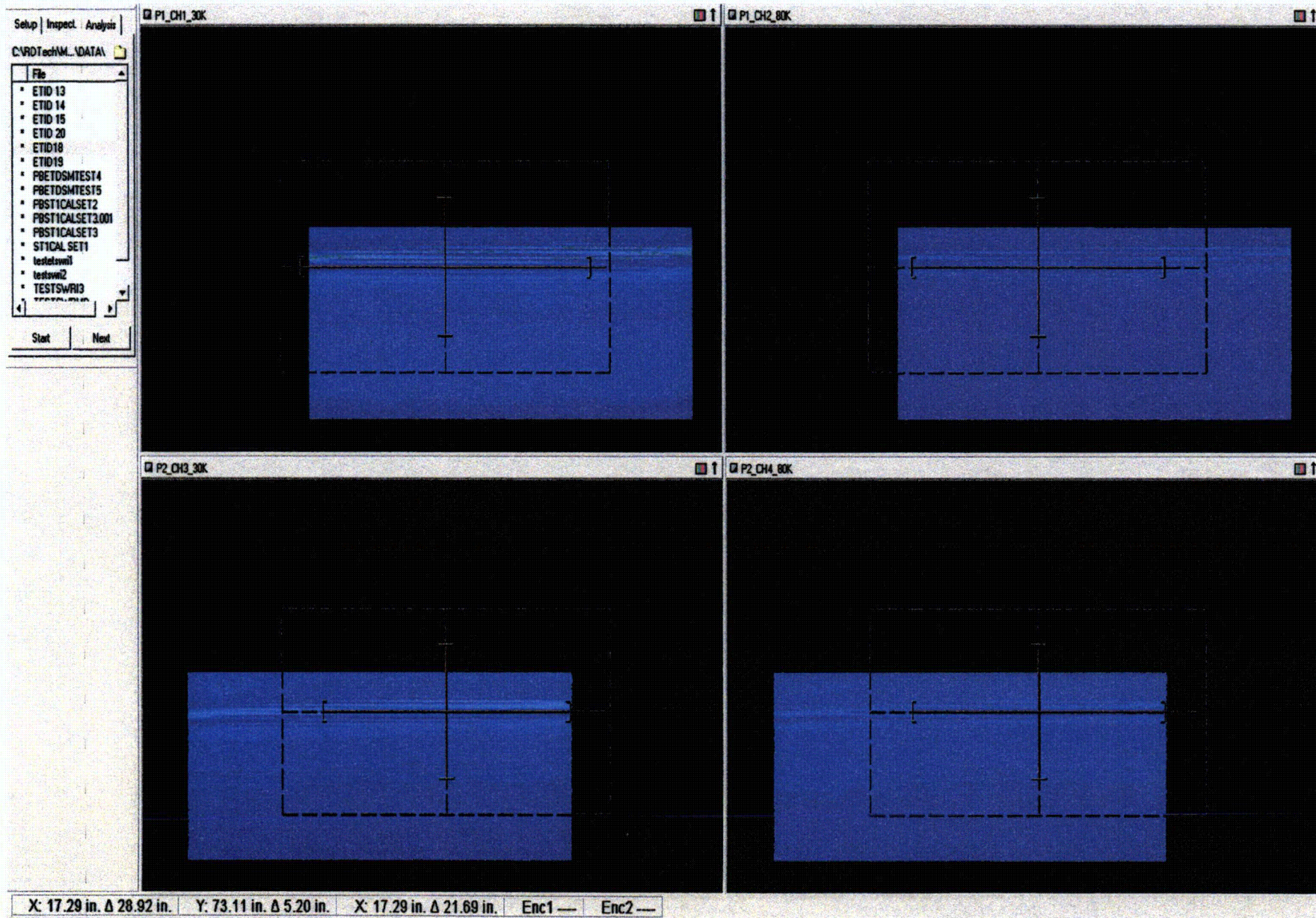
**William Angell / II**



Project No. 12-0301  
Instrument S/N 131612

EXAMINATION ET-ID-18  
STATION 1

Date: 18 NOV 2012  
CALIBRATION SHEET: ET-03-PTB-001







# IHI SOUTHWEST TECHNOLOGIES

## AUTOMATED ULTRASONIC EXAMINATION RECORD

|  |                    |                      |                                 |                       |                      |                        |       |
|--|--------------------|----------------------|---------------------------------|-----------------------|----------------------|------------------------|-------|
| Site/Plant :                               | Point Beach Unit 2 | Weld Identification: | RC-36-MRCL-BII-01A              | Pro/Rev/Chg/ICN:      | ISWT-PDI-AUT11/2/0/1 | Examination No.:       | ID-19 |
| Project No.:                               | 12-0301            | Weld Description:    | B S/G Out Noz-to-SE (120°-245°) | Device Configuration: | 136-00045            |                        |       |
| Mod.Conf.:                                 | 138-00032          | Scan Path Drawing:   | 134-00079                       | Exam Date             | Examination Time     | Surface Temperature °F |       |
| Data Acquisition Operator (s) / SNT Level: | Bryan Wright / II  | 18 Nov. 2012         | Start                           | End                   | Start                | End                    |       |
|  |                    |                      | 1024                            | 1105                  | 94                   | 94                     |       |

### Data Acquisition

| Scan Controller Parameters  | Increment Axis             | Planned | Actual | Scan Axis             | Planned | Actual | Positional Parameters                 |
|-----------------------------|----------------------------|---------|--------|-----------------------|---------|--------|---------------------------------------|
| Controller: SG-NExT         | Lower Limit                | 71.56   | 71.56  | Lower Limit           | 32.29   | 32.29  | Beam Direction: Cw/Ccw                |
| Scan: X Rotator Drive       | Upper Limit                | 76.24   | 76.24  | Upper Limit           | 65.92   | 65.92  | Probe Type: PA22-001                  |
| Increment: Y Axial Drive    | Inc. Interval (Resolution) | 0.05    |        | DCI (Scan Resolution) | 0.05    |        | Scanning Speed: 1.5 inches per second |
| Mode: Automatic Scan        | Conversion Units           | Inches  |        | Conversion Units      | Inches  |        | Number of Scans: 95                   |
| Scan Motion: Bi-directional |                            |         |        | Radius In.            | 15.38"  |        | Weld C/L: 72.262"                     |
| Correction: N/A             |                            |         |        |                       |         |        | Elevation/Nozzle C/I N/A              |

| Master Acquisition File: DM_Pipe_ID_0_CW_180_CCW_Skew.acq |                   |        |             |             | Calibration Records: | Examination Notes:     |
|---|-------------------|--------|-------------|-------------|----------------------|------------------------|
| Probe   | Channel /Angle(s) | Skew   | Scan Offset | Step Offset |                      | Pipe Diameter = 30.83" |
| Probe 1   | 1-(60-88°L)       | 0°     | + 27.57(in) | - 2.21(in)  | 110003               | Circumference = 96.86" |
| Probe 2   | 2-(60-88°L)       | 180°   | + 37.01(in) | - 2.21(in)  | 110003               |                        |
|   |                   |        |             |             |                      | Examination Remarks:   |
| N/A   | N/A               | N/A    | N/A         | N/A         | N/A                  |                        |
| ET Probe 1  | 1-2               | +22.5° | + 5.35(in)  | + 0.00(in)  | ET03-PTB-01          |                        |
| ET Probe 2  | 3-4               | -22.5° | - 5.35(in)  |             |                      |                        |

### Data Analysis

| Increment & Scan Positions Actual |                    |       |               |       | Recordable Indications |             |                          |                                     | Analyst Remarks                     |   |
|-----------------------------------|--------------------|-------|---------------|-------|------------------------|-------------|--------------------------|-------------------------------------|-------------------------------------|---|
| Scan No.(s)                       | Increment Position |       | Scan Position |       |                        | Yes         | No                       | N/A                                 | Attachment:                         |   |
|                                   | Start              | Stop  | Start         | Stop  |                        | Channel 1   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |
| 1 - 95                            | 71.56              | 76.24 | 32.29         | 65.92 | Probe 1                | Channel 2   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | Further Evaluation Required:<br><br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No                         |
|                                   |                    |       |               |       |                        | Channel 3   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |
|                                   |                    |       |               |       | Probe 2                | Channel 1   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |
|                                   |                    |       |               |       |                        | Channel 2   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | Archive Media:<br><br><input checked="" type="checkbox"/> External Hard Drive<br><br><input type="checkbox"/> CD-ROM<br>DVD-ROM |
|                                   |                    |       |               |       |                        | Channel 3   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |
|                                   |                    |       |               |       | Probe 3                | Channel 1   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       |                        | Channel 2   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       |                        | Channel 3   | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       | ET Probe 1             | Channel 1-2 | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       | ET Probe 2             | Channel 3-4 | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       | N/A                    | N/A         | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |

Analyst / SNT Level / Date:

Richard A. Riddles / III / 18 Nov. 2012

*R A Riddles*





# IHI SOUTHWEST TECHNOLOGIES

## AUTOMATED EDDY CURRENT EXAMINATION RECORD

|   |   |                                  |   |
|---|---|----------------------------------|---|
| Site/Plant : Point Beach Unit 2                                   | Weld Identification: RC-36-MRCL-BII-01A           | Pro/Rev/Chg/ICN: ISWT-AET3/2/0/0 | Examination No.: ID-19                  |
| Project No.: 12-0301  | Weld Description: B S/G Out Noz-to-SE (120°-245°) | Device Configuration: 136-00045  |   |
| Mod.Conf.: 138-00032  | Scan Path Drawing: 134-00079                      | Exam Date: 18-Nov-12             | Examination Time: Start 1024 End 1105   |
| Data Acquisition Operator (s) / SNT Level: David R. Kleinjan / II |   |                                  | Surface Temperature °F: Start 94 End 94 |

### Data Acquisition

| Scan Controller Parameters  | Increment Axis     | Planned | Actual | Scan Axis        | Planned | Actual | Positional Parameters                 |
|-----------------------------|--------------------|---------|--------|------------------|---------|--------|---------------------------------------|
| Controller: SG-NEXT         | Lower Limit        | 71.56   | 71.56  | Lower Limit      | 32.29   | 32.29  | Beam Direction: Cw/Ccw                |
| Scan: X Rotator Drive       | Upper Limit        | 76.24   | 76.24  | Upper Limit      | 65.92   | 65.92  | ET Probe Size: .24 (in)               |
| Increment: Y Axial Drive    | Increment Interval | 0.05    |        | Resolution       | 0.20    |        | Scanning Speed: 1.5 inches per second |
| Mode: Automatic Scan        | Conversion Units   | Inches  |        | Conversion Units | Inches  |        | Number of Scans: 95                   |
| Scan Motion: Bi-directional |                    |         |        | Radius In.       | 15.38"  |        | Weld C/L: 72.262"                     |
| Correction: N/A             |                    |         |        |                  |         |        | Elevation/Nozzle C/L: N/A             |

| Module Parameters: | Status | Channel(s) | Skew    | Scan Offset | Step Offset | Calibration Records: | Examination Notes:     |
|--------------------|--------|------------|---------|-------------|-------------|----------------------|------------------------|
| Probe 1            | On     | 1-2        | + 22.5° | +5.35 (in)  | -2.21 (in.) | ET-03-PTB-001        | Pipe diameter = 30.83" |
| Probe 2            | On     | 3-4        | - 22.5° | -5.35 (in)  | -2.21 (in.) | ET-03-PTB-001        | Circumference = 96.86" |

| Examination Remarks: |
|----------------------|
|                      |
|                      |
|                      |
|                      |
|                      |
|                      |

### Data Analysis

| Increment & Scan Positions Actual |                    |       |               |       | Recordable Indications |           |                          | Analyst Remarks                     |                                     |   |                                       |
|-----------------------------------|--------------------|-------|---------------|-------|------------------------|-----------|--------------------------|-------------------------------------|-------------------------------------|---|---------------------------------------|
| Scan No.(s)                       | Increment Position |       | Scan Position |       |                        |           | Yes                      | No                                  | N/A                                 | Attachment:<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Further Evaluation Required:<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>Archive Media:<br><input checked="" type="checkbox"/> External Hard Drive<br><input type="checkbox"/> CD-ROM<br><input type="checkbox"/> DVD-ROM | EXAMINATION C SCAN FOR ALL 4 CHANNELS |
|                                   | Start              | Stop  | Start         | Stop  |                        |           |                          |                                     |                                     |   |                                       |
| 1-95                              | 71.56              | 76.24 | 32.29         | 65.92 | Probe 1                | Channel 1 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |                                       |
|                                   |                    |       |               |       | Probe 1                | Channel 2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |                                       |
|                                   |                    |       |               |       | Probe 2                | Channel 3 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |                                       |
|                                   |                    |       |               |       | Probe 2                | Channel 4 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |                                       |
|                                   |                    |       |               |       | Probe 3                | Channel 5 | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |                                       |
|                                   |                    |       |               |       | Probe 3                | Channel 6 | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |                                       |
|                                   |                    |       |               |       | Probe 4                | Channel 7 | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |                                       |
|                                   |                    |       |               |       | Probe 4                | Channel 8 | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |                                       |

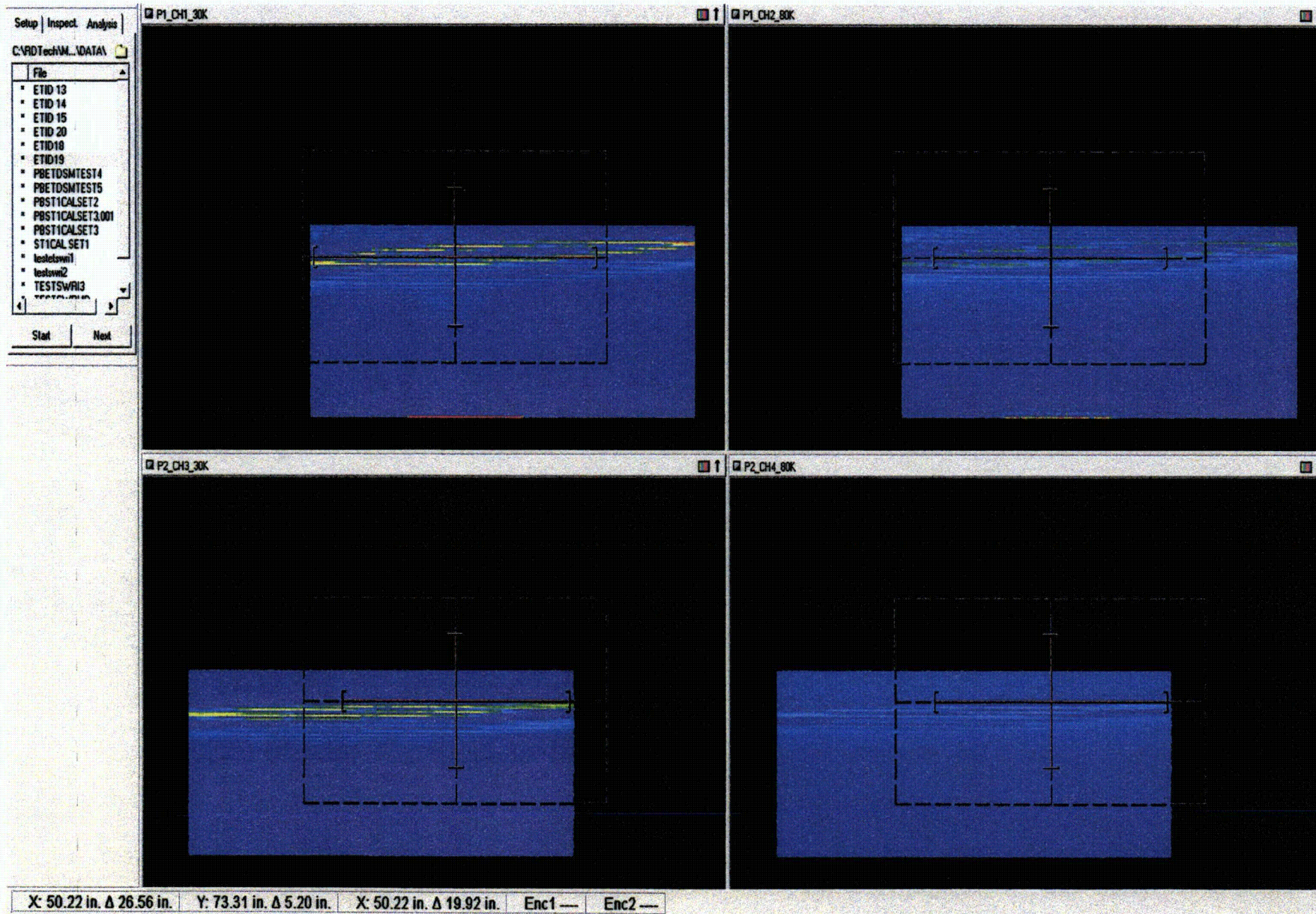
|   |   |
|---|---|
| Analyst / SNT Level / Date:<br>David R. Kleinjan / II | Reviewed By/Analyst / SNT Level/Signature:<br>William Angell / II |
|---|---|



Project No. 12-0301  
Instrument S/N 131612

EXAMINATION ET-ID-19  
STATION 1

Date: 18 NOV 2012  
CALIBRATION SHEET: ET-03-PTB-001







# IHI SOUTHWEST TECHNOLOGIES

## AUTOMATED ULTRASONIC EXAMINATION RECORD

|  |  |  |                               |            |                               |
|--|--|--|-------------------------------|------------|-------------------------------|
| <b>Site/Plant :</b> Point Beach Unit 2                                 | <b>Weld Identification:</b> RC-36-MRCL-BII-01A           | <b>Pro/Rev/Chg/ICN:</b> ISWT-PDI-AUT11/2/0/1 | <b>Examination No.:</b> ID-20 |            |                               |
| <b>Project No.:</b> 12-0301  | <b>Weld Description:</b> B S/G Out Noz-to-SE (240°-365°) | <b>Device Configuration:</b> 136-00045       |                               |            |                               |
| <b>Mod.Conf.:</b> 138-00032  | <b>Scan Path Drawing:</b> 134-00079                      | <b>Exam Date</b>                             | <b>Examination Time</b>       |            |                               |
| <b>Data Acquisition Operator (s) / SNT Level:</b><br>Bryan Wright / II |  | 18 Nov. 2012                                 | <b>Start</b>                  | <b>End</b> | <b>Surface Temperature °F</b> |
|  |  |  | 1114                          | 1153       | 94                            |

### Data Acquisition

| Scan Controller Parameters  | Increment Axis             | Planned | Actual | Scan Axis             | Planned | Actual | Positional Parameters                 |
|-----------------------------|----------------------------|---------|--------|-----------------------|---------|--------|---------------------------------------|
| Controller: SG-NEXT         | Lower Limit                | 71.56   | 71.56  | Lower Limit           | 64.57   | 64.57  | Beam Direction: Cw/Ccw                |
| Scan: X Rotator Drive       | Upper Limit                | 76.24   | 76.24  | Upper Limit           | 98.20   | 98.20  | Probe Type: PA22-001                  |
| Increment: Y Axial Drive    | Inc. Interval (Resolution) | 0.05    |        | DCI (Scan Resolution) | 0.05    |        | Scanning Speed: 1.5 inches per second |
| Mode: Automatic Scan        | Conversion Units           | Inches  |        | Conversion Units      | Inches  |        | Number of Scans: 95                   |
| Scan Motion: Bi-directional |                            |         |        | Radius In.            | 15.38"  |        | Weld C/L: 72.262"                     |
| Correction: N/A             |                            |         |        |                       |         |        | Elevation/Nozzle C/I: N/A             |

| Master Acquisition File: DM_Pipe_ID_0_CW_180_CCW_Skew.acq |                   |        |             |             | Calibration Records: | Examination Notes:          |
|---|-------------------|--------|-------------|-------------|----------------------|-----------------------------|
| Probe   | Channel /Angle(s) | Skew   | Scan Offset | Step Offset |                      |                             |
| Probe 1   | 1-(60-88°L)       | 0°     | + 27.57(in) | - 2.21(in)  | 110003               | Pipe Diameter = 30.83"      |
| Probe 2   | 2-(60-88°L)       | 180°   | + 37.01(in) | - 2.21(in)  | 110003               | Circumference = 96.86"      |
| N/A   | N/A               | N/A    | N/A         | N/A         | N/A                  | <b>Examination Remarks:</b> |
| ET Probe 1  | 1-2               | +22.5° | + 5.35(in)  | + 0.00(in)  | ET03-PTB-01          |                             |
| ET Probe 2  | 3-4               | -22.5° | - 5.35(in)  |             |                      |                             |

### Data Analysis

| Increment & Scan Positions Actual |                    |       |               |       | Recordable Indications |   |                                     | Analyst Remarks                     |   |
|-----------------------------------|--------------------|-------|---------------|-------|------------------------|---|-------------------------------------|-------------------------------------|---|
| Scan No.(s)                       | Increment Position |       | Scan Position |       |                        | Yes   | No                                  | N/A                                 | Attachment:   |
|                                   | Start              | Stop  | Start         | Stop  |                        |   |                                     |                                     |   |
| 1 - 95                            | 71.56              | 76.24 | 64.57         | 98.20 | Probe 1                | Channel 1 <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
|                                   |                    |       |               |       | Probe 2                | Channel 2 <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | Further Evaluation Required:  |
|                                   |                    |       |               |       |                        | Channel 3 <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |
|                                   |                    |       |               |       |                        | Channel 1 <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |
|                                   |                    |       |               |       | Probe 3                | Channel 2 <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
|                                   |                    |       |               |       |                        | Channel 3 <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |
|                                   |                    |       |               |       |                        | Channel 1 <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       | ET Probe 1             | Channel 1-2 <input type="checkbox"/>          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | Archive Media:  |
|                                   |                    |       |               |       | ET Probe 2             | Channel 3-4 <input type="checkbox"/>          | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       | N/A                    | N/A   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |
|                                   |                    |       |               |       |                        |   |                                     |                                     | <input checked="" type="checkbox"/> External Hard Drive             |
|                                   |                    |       |               |       |                        |   |                                     |                                     | <input type="checkbox"/> CD-ROM                                     |
|                                   |                    |       |               |       |                        |   |                                     |                                     | DVD-ROM   |

|                                    |   |  |
|------------------------------------|---|--|
| <b>Analyst / SNT Level / Date:</b> | Richard A. Riddles / III / 18 Nov. 2012 |  |
|------------------------------------|---|--|





# IHI SOUTHWEST TECHNOLOGIES AUTOMATED EDDY CURRENT EXAMINATION RECORD

|   |   |                                  |                                       |   |
|---|---|----------------------------------|---------------------------------------|---|
| Site/Plant: Point Beach Unit 2                                    | Weld Identification: RC-36-MRCL-BII-01A           | Pro/Rev/Chg/ICN: ISWT-AET3/2/0/0 | Examination No.: ID-20                |   |
| Project No.: 12-0301  | Weld Description: B S/G Out Noz-to-SE (240°-365°) | Device Configuration: 136-00045  |                                       |   |
| Mod.Conf.: 138-00032  | Scan Path Drawing: 134-00079                      | Exam Date: 18-Nov-12             | Examination Time: Start 1114 End 1153 | Surface Temperature °F: Start 94 End 94 |
| Data Acquisition Operator (s) / SNT Level: David R. Kleinjan / II |   |                                  |                                       |   |

## Data Acquisition

| Scan Controller Parameters |                 | Increment Axis     | Planned | Actual | Scan Axis        | Planned | Actual | Positional Parameters |                       |
|----------------------------|-----------------|--------------------|---------|--------|------------------|---------|--------|-----------------------|-----------------------|
| Controller:                | SG-NEXT         | Lower Limit        | 71.56   | 71.56  | Lower Limit      | 64.57   | 64.57  | Beam Direction:       | Cw/Ccw                |
| Scan:                      | X Rotator Drive | Upper Limit        | 76.24   | 76.24  | Upper Limit      | 98.20   | 98.20  | ET Probe Size:        | .24 (in)              |
| Increment:                 | Y Axial Drive   | Increment Interval | 0.05    |        | Resolution       | 0.20    |        | Scanning Speed        | 1.5 inches per second |
| Mode:                      | Automatic Scan  | Conversion Units   | Inches  |        | Conversion Units | Inches  |        | Number of Scans:      | 95                    |
| Scan Motion:               | Bi-directional  |                    |         |        | Radius In.       | 15.38"  |        | Weld C/L              | 72.262"               |
| Correction:                | N/A             |                    |         |        |                  |         |        | Elevation/Nozzle C/L  | N/A                   |

| Module Parameters: |            |      |             |             |             | Calibration Records: | Examination Notes:     |
|--------------------|------------|------|-------------|-------------|-------------|----------------------|------------------------|
| Status             | Channel(s) | Skew | Scan Offset | Step Offset |             |                      | Pipe diameter = 30.83" |
| Probe 1            | On         | 1-2  | + 22.5°     | +5.35 (in)  | -2.21 (in.) | ET-03-PTB-001        | Circumference = 96.86" |
| Probe 2            | On         | 3-4  | - 22.5°     | -5.35 (in)  | -2.21 (in.) | ET-03-PTB-001        |                        |
|                    |            |      |             |             |             |                      |                        |
|                    |            |      |             |             |             |                      | Examination Remarks:   |
|                    |            |      |             |             |             |                      |                        |
|                    |            |      |             |             |             |                      |                        |
|                    |            |      |             |             |             |                      |                        |
|                    |            |      |             |             |             |                      |                        |

## Data Analysis

| Increment & Scan Positions Actual |                    |       |               |       | Recordable Indications |           |                          | Analyst Remarks                     |                                     |   |                                       |
|-----------------------------------|--------------------|-------|---------------|-------|------------------------|-----------|--------------------------|-------------------------------------|-------------------------------------|---|---------------------------------------|
| Scan No.(s)                       | Increment Position |       | Scan Position |       |                        |           | Yes                      | No                                  | N/A                                 | Attachment:<br><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No<br>Further Evaluation Required:<br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No<br>Archive Media:<br><input checked="" type="checkbox"/> External Hard Drive<br><input type="checkbox"/> CD-ROM<br><input type="checkbox"/> DVD-ROM | EXAMINATION C SCAN FOR ALL 4 CHANNELS |
|                                   | Start              | Stop  | Start         | Stop  |                        |           |                          |                                     |                                     |   |                                       |
| 1-95                              | 71.56              | 76.24 | 64.57         | 98.20 | Probe 1                | Channel 1 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |                                       |
|                                   |                    |       |               |       |                        | Channel 2 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |                                       |
|                                   |                    |       |               |       | Probe 2                | Channel 3 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |                                       |
|                                   |                    |       |               |       |                        | Channel 4 | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |   |                                       |
|                                   |                    |       |               |       | Probe 3                | Channel 5 | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |                                       |
|                                   |                    |       |               |       |                        | Channel 6 | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |                                       |
|                                   |                    |       |               |       | Probe 4                | Channel 7 | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |                                       |
|                                   |                    |       |               |       |                        | Channel 8 | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |   |                                       |

|   |  |
|---|--|
| Analyst / SNT Level / Date:<br>David R. Kleinjan / II | Reviewed By/Analyst / SNT Level /Signature:<br>William Angell / II |
|---|--|



Project No. 12-0301  
Instrument S/N 131612

EXAMINATION ET-ID-20  
STATION 1

Date: 18 NOV 2012  
CALIBRATION SHEET: ET-03-PTB-001

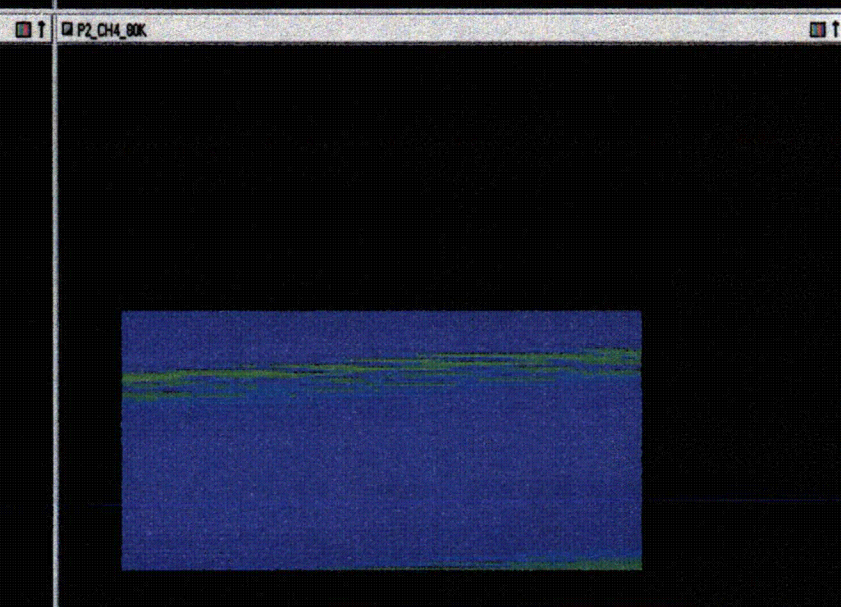
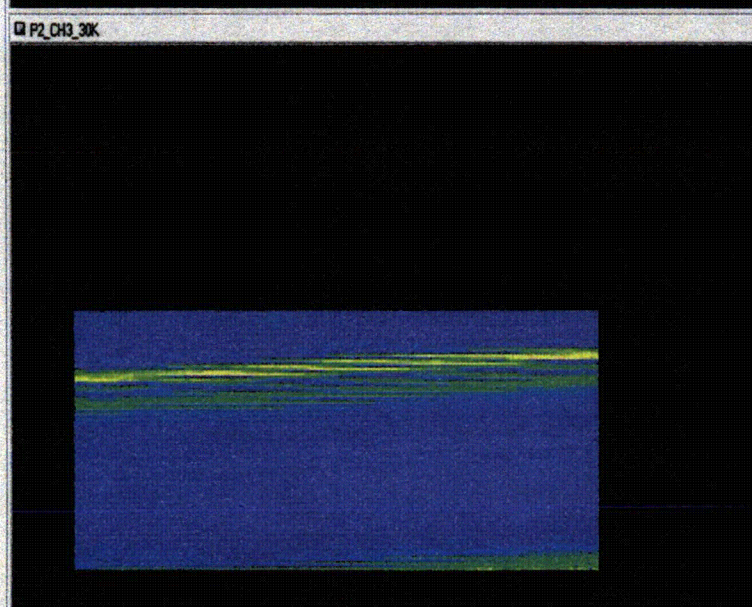
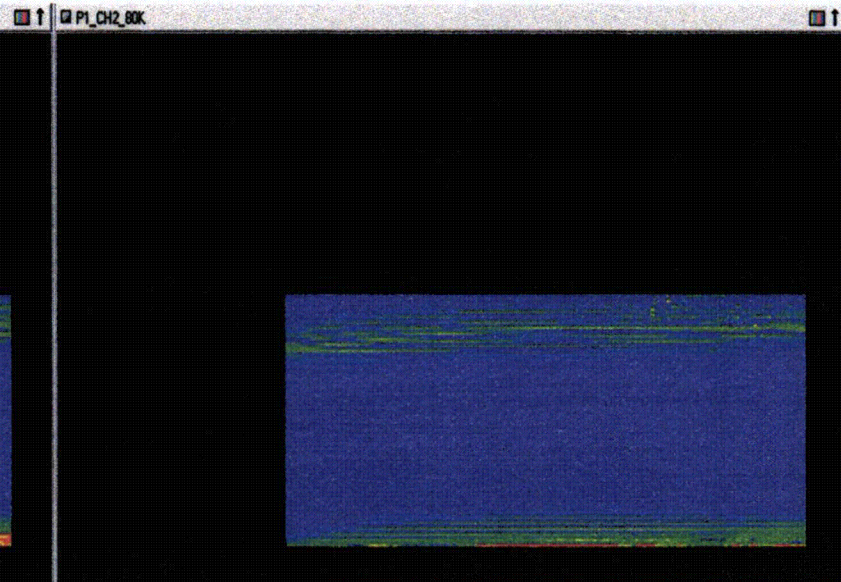
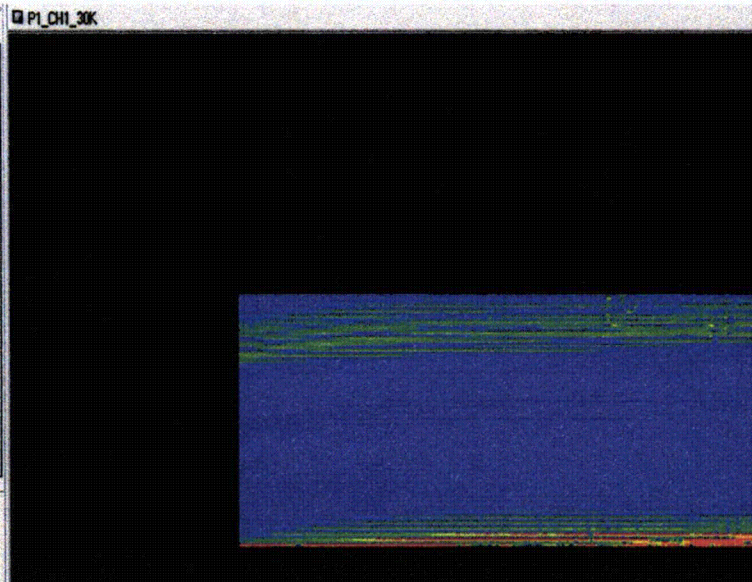
Setup | Inspect | Analysis

C:\RDTechnM\DATA\

File

- ETID 13
- ETID 14
- ETID 15
- ETID 20
- ETID18
- ETID19
- PBETDSMTEST4
- PBETDSMTEST5
- PBSTICALSET2
- PBSTICALSET3.001
- PBSTICALSET3
- STICAL SET1
- testswm1
- testswm2
- TESTSWRI3

Start Next



X: -5634.90 in. Δ 42.96 in. Y: 3208.11 in. Δ 116.20 in. X: -5634.90 in. Δ 21.48 in. Enc1 — Enc2 —



Attachment 3  
Exelon PowerLabs, LLC Report NEX-77991  
Analysis of Archive Weld Samples



**Exelon PowerLabs, LLC**  
Technical Services East  
175 North Caln Road  
Coatesville, PA 19320-2309

www.exelonpowerlabs.com  
800-971-LABS  
610-380-2532 fax

**To: Steve Forsha, Point Beach**

**From: Chris Reilly, (610)380-2432**  
**chris.reilly@ExelonPowerLabs.com**

**Project Number: NEX-77991**

**Subject: Analysis of Archive Weld Sample**  
**Purchase Order No.: 02320872**

**Date: September 17, 2013**

## DESCRIPTION

Two archive weld samples for the Point Beach Unit 2 replacement steam generator nozzle dissimilar metal weld were submitted for chemical analysis of the Inconel ID bore overlay. The station requirement is that the weld contains 24% chromium, minimum.

Attachments 1 and 2 show the weld and overlay detail.

## TEST RESULTS

The Inconel overlay of both weld samples exhibited greater than 24 wt% chromium. The full chemical analysis is shown in Table I. The weld deposit chemistry is consistent with ERNiCrFe-7.



## TEST PLAN

1. Photograph as-received sample
2. Etch overlay side to display welds
3. Section as needed for OES of overlay

## STATEMENT OF QUALITY

Testing was performed with standard equipment that have accuracies traceable to nationally recognized standards, or to physical constants, by qualified personnel, and in accordance with the **Exelon PowerLabs Quality Assurance Program**.

Technician(s): Stephen Merjanian, (610)380-2472, [stephen.merjanian@ExelonPowerLabs.com](mailto:stephen.merjanian@ExelonPowerLabs.com)

Reviewed &

Approved by: Chris Reilly

Sr. Engineer

09/17/2013

*Project review and approval is electronically authenticated in Exelon PowerLabs project record.*

cc:

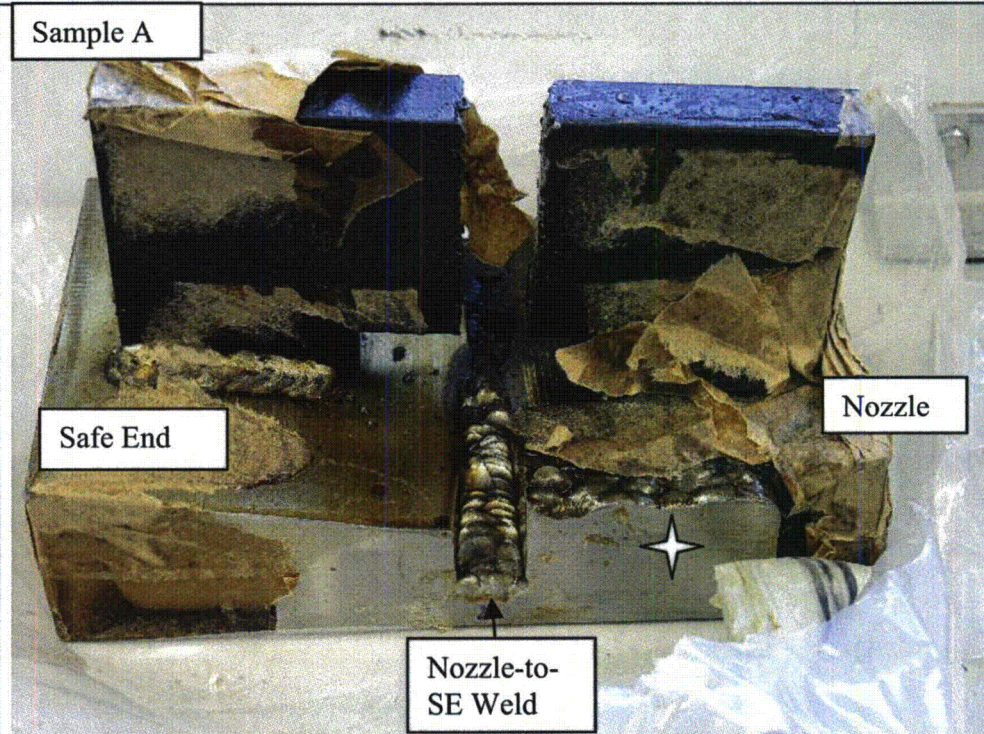


## OBSERVATIONS and DATA

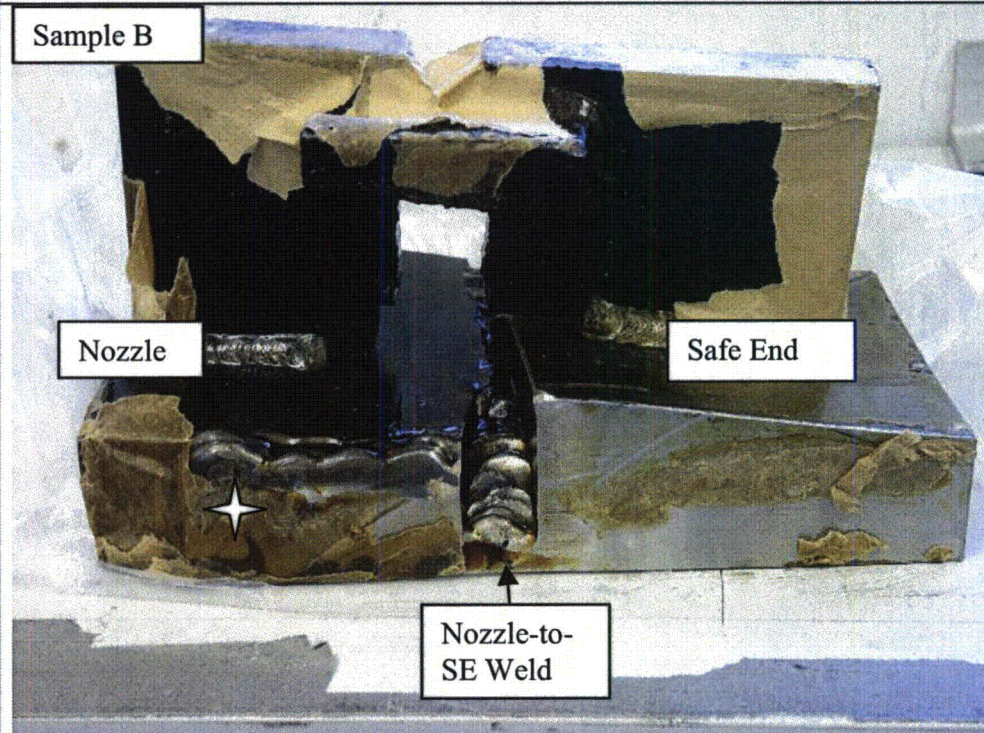
**Figure 1: As-received Weld Samples**

The samples were labeled A and B in the lab for identification. The star in each photograph indicates the approximate location of the chemical analysis.

**Sample A**



**Sample B**

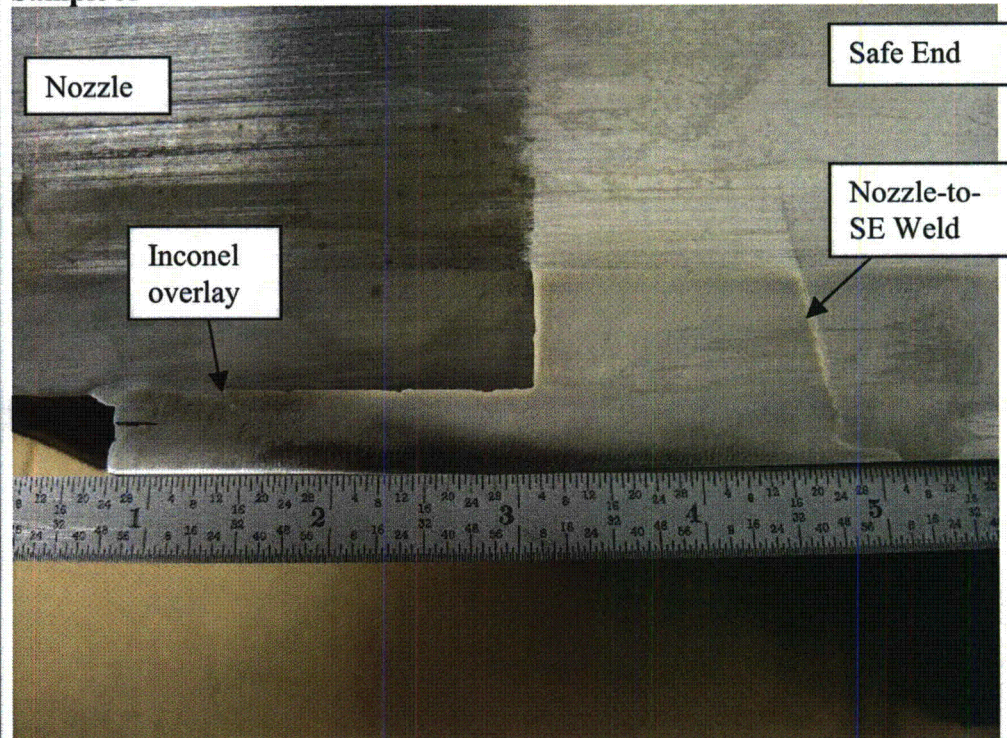




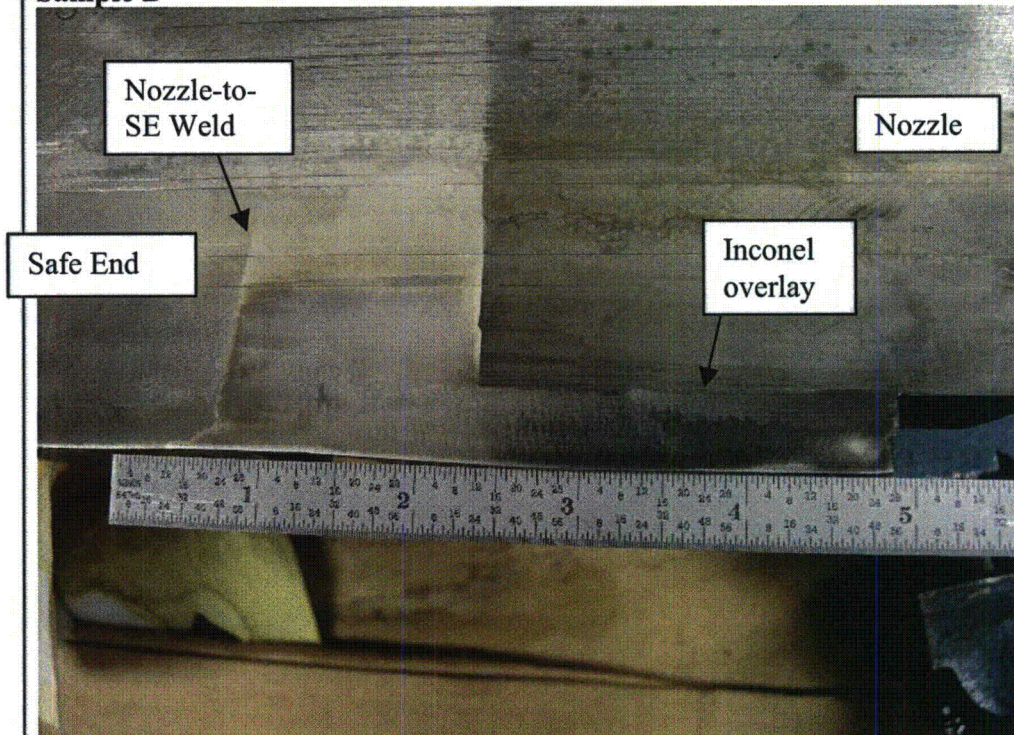
**Figure 2: Macroetch of Weld Samples**

Both samples were prepared and etched to highlight the Inconel overlay. The dissimilar metal weld joining the nozzle and safe end are also visible.

**Sample A**



**Sample B**



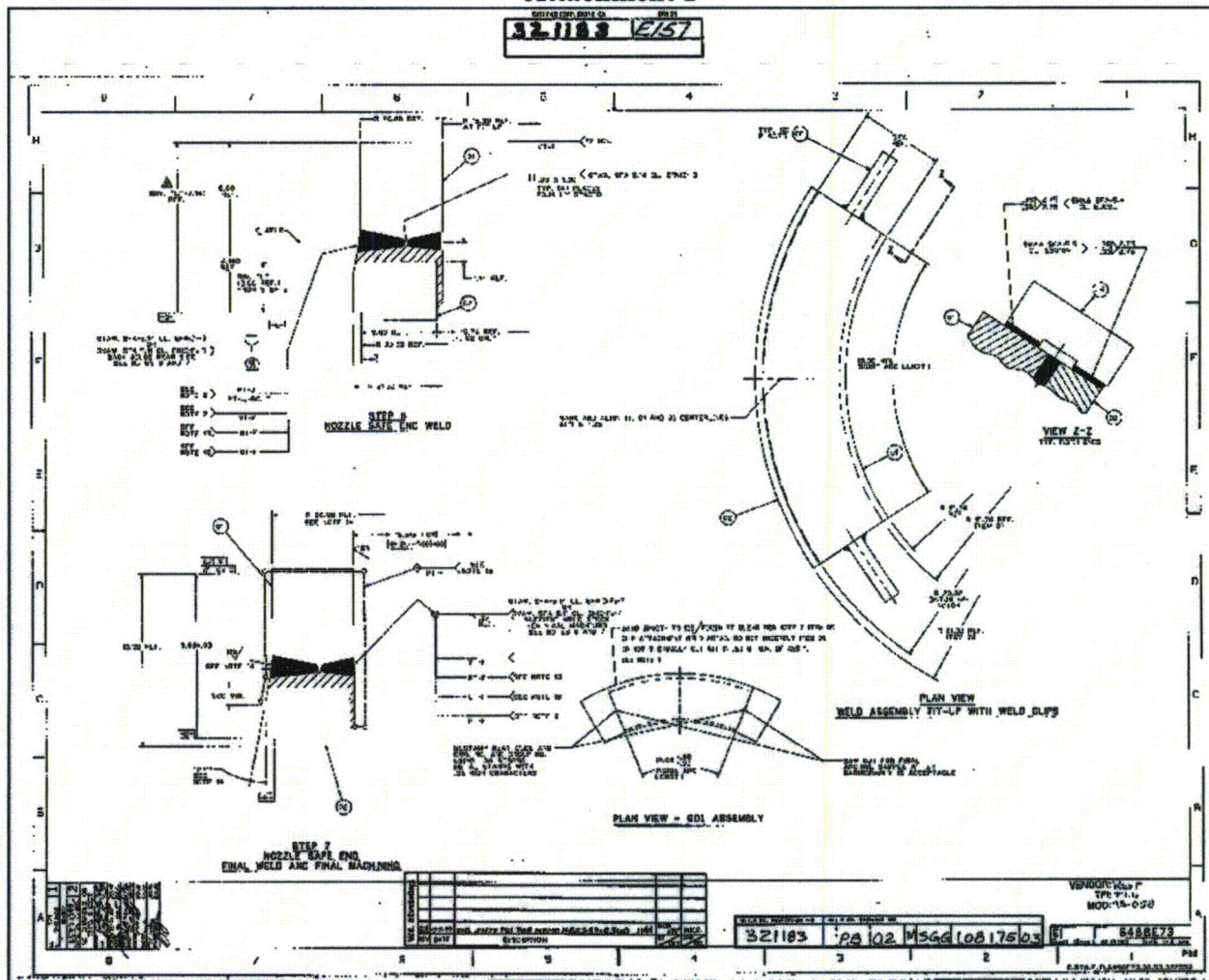


**Table I: Chemical Analysis by Optical Emission Spectrometer (weight percentage)**

| <b>Element</b> | <b>Sample A</b> | <b>Sample B</b> |
|----------------|-----------------|-----------------|
| C              | 0.02            | 0.02            |
| Mn             | 0.29            | 0.29            |
| Fe             | 10.6            | 10.0            |
| P              | <0.01           | <0.01           |
| S              | <0.01           | <0.01           |
| Si             | 0.18            | 0.19            |
| Cu             | 0.01            | 0.01            |
| Ni             | 57.9            | 58.3            |
| Co             | 0.02            | 0.02            |
| Al             | 0.60            | 0.62            |
| Ti             | 0.51            | 0.54            |
| Cr             | 29.4            | 29.6            |
| Nb+Ta          | 0.09            | 0.10            |
| Mo             | 0.02            | 0.02            |
| Al+Ti          | 1.1             | 1.2             |
| Other, Total   | 0.36            | 0.29            |



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## Attachment 2

