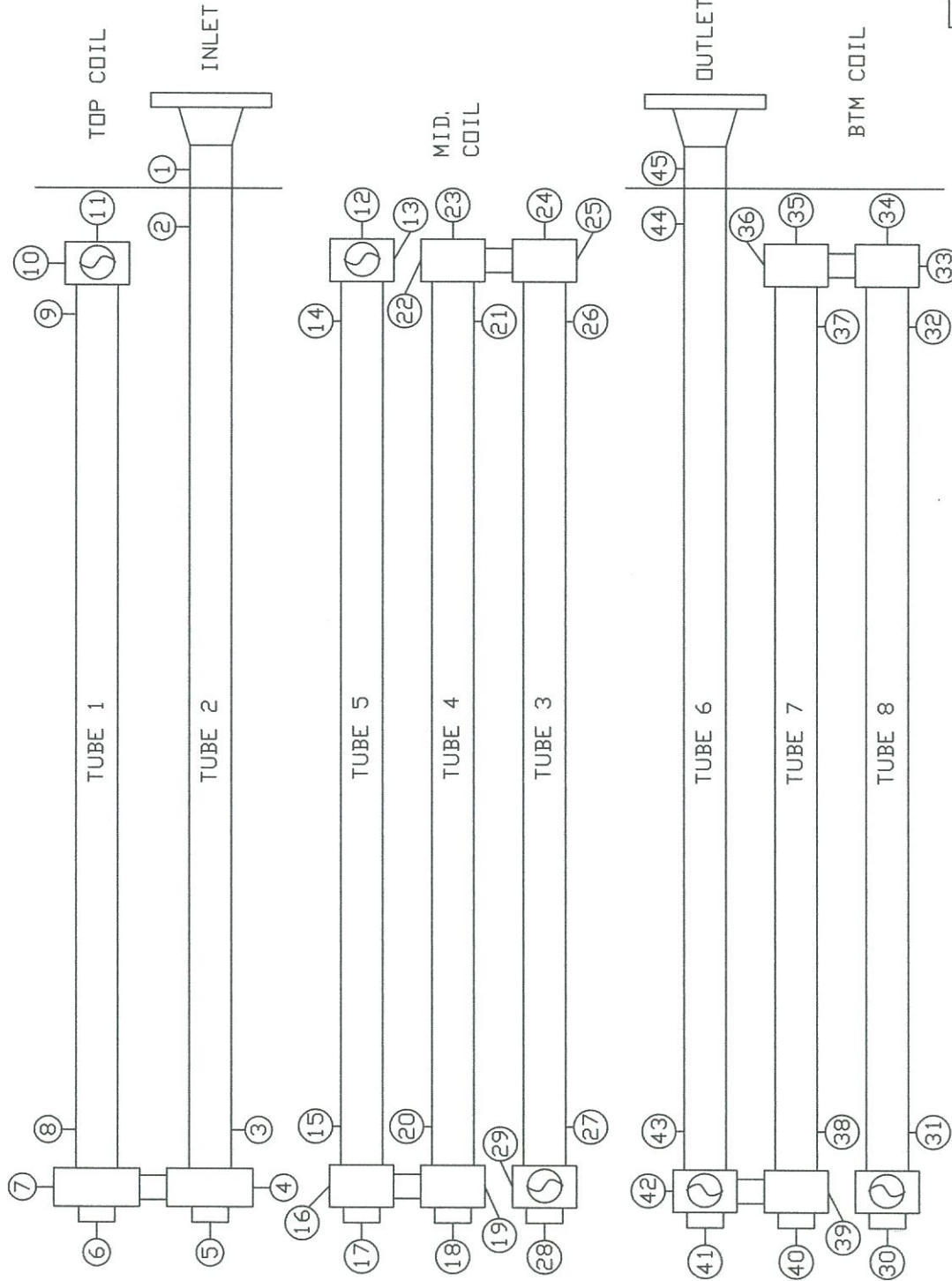


EQUIP RETIREMENT DATE: 2/4/2015
NEXT INSPECTION IS DUE: 1/12/2012



DM-401

- #25. 01- SIDE 2. 081
- #26. 01- TOP 0. 993
- #26. 02- LFT 1. 014
- #26. 03- BTM 1. 004
- #26. 04- RGT 0. 993
- #27. 01- TOP 0. 993
- #27. 02- LFT 0. 990
- #27. 03- BMT 1. 007
- #27. 04- RGT 1. 034
- #28. 01- END 2. 055
- #29. 01- TOP 1. 444
- #30. 01- END 1. 399
- #31. 01- TOP 1. 010
- #31. 02- LFT 1. 012
- #31. 03- BTM 1. 018
- #31. 04- RGT 1. 011
- #32. 01- TOP 1. 024
- #32. 02- LFT 0. 999
- #32. 03- BTM 1. 038
- #32. 04- RGT 1. 018
- #33. 01- SIDE 1. 259
- #34. 01- END 1. 949
- #35. 01- END 1. 277
- #36. 01- SIDE 1. 906
- #37. 01- TOP 1. 001
- #37. 02- LFT 1. 017
- #37. 03- BTM 1. 009
- #37. 04- RGT 1. 001
- #38. 01- TOP 1. 014
- #38. 02- LFT 0. 988
- #38. 03- BTM 1. 041
- #38. 04- RGT 1. 012
- #39. 01- SIDE 1. 308
- #40. 01- END 1. 893
- #41. 01- END 1. 167
- #42. 01- SIDE 1. 880
- #43. 01- TOP 0. 998
- #43. 02- LEFT 0. 982
- #43. 03- BTM 1. 015
- #43. 04- RGT 0. 984
- #44. 01- TOP 0. 984
- #44. 02- LFT 0. 972
- #44. 03- BTM 1. 012
- #44. 04- RGT 1. 021
- #45. 01- BTM 0. 996

BUSINESS UNIT	PURE ENERGY
EQ/CIRC ID #	LH0010-C2
EQUIP NAME	LINE HEATER (WITH 2 COILS)
DWG #	LH0010-C2

DESC: COIL 2 ON LINE HEATER 3
DWG#: LH0010-C2-1.01-45.01

Corrosion Monitoring Eq/L ID Analysis Report

Hawkeye Inspection, LLC
1595 So. Hwy 150, Suite F
Evanston, WY 82930
(307) -789-3540

Report Date: 01/22/2011

(Report in Inches, Corrosion Rates in MPY)
Analysis: Straight Line

Unit: LH-0010

Eq/Circ ID: LH0010-C2

Eq Type: VESSEL

Class:

CM RBI:

Design Code: S8/D1

Flange Rating: 5734 lb/in²
Design Pressure: 10000 lb/in²
Design Temperature: 180 °F

Description: COIL 2 ON LINE HEATER 3, SN:BS10K4MM-05B

Summary: Group Name:

Insp. Due Date = 01/12/2012

Pred. Ret. Date = 02/04/2015

Group Description:

RCR = 19.1 MPY

Rem. Life (from last survey 01/12/2011) = 4.1 yrs

0 C.A. Status: No

Total Caution TMLs = 9

TM L No	Location	Ctn	First Survey TML Thick	First Survey Nt	First Date	Previous Survey Thick	Previous Survey Nt	Previous Date	Last Survey Thick	Last Survey Nt	Last Date	Shrt Term Rate	Long Term Rate	Best Rate	Max Hist CR	Retirement Thickness	Rep TML CR	TM L Retirement Date	TM L Inspection Date	
1.01	TOP	N	0.991		06/14/2007	0.991		09/08/2009	0.991	RR	01/12/2011	0	0	0	4.0	0.875	U	0.1	01/21/3171	01/12/2012
2.01	TOP	N	1.005		06/14/2007	0.998		09/08/2009	0.994		01/12/2011	3.0	3.1	3.1	3.1	0.875	U	3.1	06/02/2049	01/12/2012
2.02	LFT	N	1.000	NM	03/10/2005	1.005		09/08/2009	1.001		01/12/2011	3.0	0	0	3.0	0.875	U	3.0	01/11/2053	01/12/2012
2.03	BTM	N	1.000	NM	03/10/2005	1.012		09/08/2009	1.003		01/12/2011	6.7	0	0	6.7	0.875	U	6.7	02/19/2030	01/12/2012
2.04	RGT	N	1.000	NM	03/10/2005	1.016		09/08/2009	1.011		01/12/2011	3.7	0	0	3.7	0.875	U	3.7	10/15/2047	01/12/2012
3.01	TOP	N	0.992		06/14/2007	0.986		09/08/2009	0.984		01/12/2011	1.5	2.2	2.3	3.5	0.875	U	2.2	07/29/2060	01/12/2012
3.02	LFT	N	1.000	NM	03/10/2005	1.000		09/08/2009	0.991		01/12/2011	6.7	1.5	1.2	6.7	0.875	U	6.7	05/06/2028	01/12/2012
3.03	BTM	N	1.000	NM	03/10/2005	0.988		09/08/2009	0.984		01/12/2011	3.0	2.7	2.7	3.0	0.875	U	3.0	05/14/2047	01/12/2012
3.04	RGT	N	1.000	NM	03/10/2005	1.005		09/08/2009	1.001		01/12/2011	3.0	0	0	3.0	0.875	U	3.0	01/11/2053	01/12/2012
4.01	SIDE	N	1.275		06/14/2007	1.275		09/08/2009	1.275	RR	01/12/2011	0	0	0	0	0.875	U	0.1	01/27/4011	01/12/2012
5.01	END	N	1.860		06/14/2007	1.860		09/08/2009	1.860	RR	01/12/2011	0	0	0	0	0.875	U	0.1	01/27/4011	01/12/2012
6.01	END	N	1.555		06/14/2007	1.555		09/08/2009	1.547		01/12/2011	6.0	2.2	2.0	6.0	0.875	U	6.0	01/13/2123	01/12/2012
7.01	SIDE	N	2.118		06/14/2007	2.118		09/08/2009	2.118		01/12/2011	0	0	0	0	0.875	U	0.1	01/27/4011	01/12/2012
8.01	TOP	N	1.003		06/14/2007	0.995		09/08/2009	0.995	RR	01/12/2011	0	2.2	2.4	3.6	0.875	U	2.2	07/30/2065	01/12/2012
8.02	LFT	N	1.000	NM	03/10/2005	1.021		09/08/2009	1.017		01/12/2011	3.0	0	0	3.0	0.875	U	3.0	05/13/2058	01/12/2012
8.03	BTM	N	1.000	NM	03/10/2005	0.993		09/08/2009	0.991		01/12/2011	1.5	1.5	1.5	1.6	0.875	U	1.5	05/13/2088	01/12/2012
8.04	RGT	N	1.000	NM	03/10/2005	1.007		09/08/2009	1.001		01/12/2011	4.5	0	0	4.5	0.875	U	4.5	01/12/2039	01/12/2012
9.01	TOP	N	1.008		06/14/2007	0.988		09/08/2009	0.988	RR	01/12/2011	0	5.6	5.9	11.1	0.875	U	5.6	03/18/2031	01/12/2012
9.02	LFT	N	1.000	NM	03/10/2005	0.992		09/08/2009	0.992	RR	01/12/2011	0	1.4	1.5	1.8	0.875	U	1.4	08/08/2094	01/12/2012
9.03	BTM	N	1.000	NM	03/10/2005	0.986		09/08/2009	0.984		01/12/2011	1.5	2.7	2.8	3.1	0.875	U	2.7	05/27/2051	01/12/2012

Corrosion Monitoring Eq/C ID Analysis Report

Hawkeye Inspection, LLC
1595 So. Hwy 150, Suite F
Evanston, WY 82930
(307)-789-3540

Report Date: 01/22/2011

(Report in Inches, Corrosion Rates in MPY)
Analysis: Straight Line

Unit: LH-0010
Eq/Circ ID: LH0010-C2
Eq Type: VESSEL
Class:
CM RBI: S8/D1
Design Code: S8/D1

Flange Rating: 5734 lb/in²
Design Pressure: 10000 lb/in²
Design Temperature: 180 °F

Description: COIL 2 ON LINE HEATER 3, SN:BS10K4MM-05B

Summary: Group Name:

Insp. Due Date = 01/12/2012
Pred. Ret. Date = 02/04/2015

Group Description:

RCR = 19.1 MPY
Rem. Life (from last survey 01/12/2011) = 4.1 yrs

O.C.A. Status: No
Total Caution TMLs = 9

TML No	Location	Ctn	First Survey Thick Nt	First Date	Previous Survey Thick Nt	Previous Date	Last Survey Thick Nt	Last Date	Shrt Term Rate	Long Term Rate	Best Rate	Max Hist CR	Retirement Thickness	Rep TML CR	TML Retirement Date	TML Inspection Date
9.04	RGT	N	1.000 NM	03/10/2005	0.977	09/08/2009	0.977 RR	01/12/2011	0	3.9	4.2	5.1	0.875 U	3.9	03/09/2037	01/12/2012
10.01	TOP	N	1.471	06/14/2007	1.471	09/08/2009	1.470	01/12/2011	0.7	0.3	0.3	0.7	0.875 U	0.7	01/18/2861	01/12/2012
11.01	END	N	1.580	06/14/2007	1.580	09/08/2009	1.580 RR	01/12/2011	0	0	0	0	0.875 U	0.1	01/27/4011	01/12/2012
12.01	END	N	1.462	06/14/2007	1.462	09/08/2009	1.457	01/12/2011	3.7	1.4	1.3	3.7	0.875 U	3.7	05/01/2168	01/12/2012
13.01	BTM	N	2.026	06/14/2007	2.026	09/08/2009	2.026 RR	01/12/2011	0	0	0	0	0.875 U	0.1	01/27/4011	01/12/2012
14.01	TOP	N	0.990	06/14/2007	0.990 RR	09/08/2009	1.001 RR	01/12/2011	0	0	0	11.1	0.875 U	0.1	01/21/3271	01/12/2012
14.02	LFT	N	1.000 NM	03/10/2005	1.009	09/08/2009	1.009 RR	01/12/2011	0	0	0	0	0.875 U	0.1	01/22/3351	01/12/2012
14.03	BTM	N	1.000 NM	03/10/2005	1.009	09/08/2009	1.009	01/12/2011	0	0	0	0	0.875 U	0.1	01/22/3351	01/12/2012
14.04	RGT	N	1.000 NM	03/10/2005	1.005	09/08/2009	1.005	01/12/2011	0	0	0	0	0.875 U	0.1	01/22/3311	01/12/2012
15.01	TOP	N	1.010	06/14/2007	1.004	09/08/2009	0.992	01/12/2011	8.9	5.0	4.8	9.3	0.875 U	8.9	03/06/2024	01/12/2012
15.02	LFT	Y *	1.000 NM	03/10/2005	1.023	09/08/2009	0.975	01/12/2011	35.7	4.3	1.9	35.7	0.875 U	35.7	10/31/2013	01/12/2012
15.03	BTM	N	1.000 NM	03/10/2005	1.029	09/08/2009	1.015	01/12/2011	10.4	0	0	10.4	0.875 U	10.4	06/29/2024	01/12/2012
15.04	RGT	N	1.000 NM	03/10/2005	1.048	09/08/2009	1.033	01/12/2011	11.2	0	0	11.2	0.875 U	11.2	02/20/2025	01/12/2012
16.01	SIDE	N	1.265	06/14/2007	1.265	09/08/2009	1.265 RR	01/12/2011	0	0	0	0	0.875 U	0.1	01/27/4011	01/12/2012
17.01	END	Y	1.966	06/14/2007	1.966	09/08/2009	1.921	01/12/2011	33.5	12.6	11.3	33.5	0.875 U	33.5	04/04/2042	01/12/2012
18.01	END	N	1.297	06/14/2007	1.297	09/08/2009	1.297 RR	01/12/2011	0	0	0	0	0.875 U	0.1	01/27/4011	01/12/2012
19.01	SIDE	N	1.959	06/14/2007	1.959	09/08/2009	1.959	01/12/2011	0	0	0	0	0.875 U	0.1	01/27/4011	01/12/2012
20.01	TOP	N	1.001	06/14/2007	1.001 RR	09/08/2009	1.001	01/12/2011	0	0	0	2.2	0.875 U	0.1	01/21/3271	01/12/2012
20.02	LFT	N	1.000 NM	03/10/2005	1.027	09/08/2009	1.016	01/12/2011	8.2	0	0	8.2	0.875 U	8.2	03/24/2028	01/12/2012
20.03	BTM	N	1.000 NM	03/10/2005	0.977	09/08/2009	0.975	01/12/2011	1.5	4.3	4.5	5.1	0.875 U	4.3	04/15/2034	01/12/2012
20.04	RGT	Y *	1.000 NM	03/10/2005	1.019	09/08/2009	0.963	01/12/2011	41.7	6.3	3.7	41.7	0.875 U	41.7	02/21/2013	01/12/2012

Corrosion Monitoring Eq/L ID Analysis Report

Hawkeye Inspection, LLC
1595 So. Hwy 150, Suite F
Evanston, WY 82930
(307) -789-3540

Report Date: 01/22/2011

(Report in Inches, Corrosion Rates in MPY)
Analysis: Straight Line

Unit: LH-0010
Eq/Circ ID: LH0010-C2
Eq Type: VESSEL
Class:
CM RBI:
Design Code: S8/D1

Flange Rating: 5734 lb/in²
Design Pressure: 10000 lb/in²
Design Temperature: 180 °F

Description: COIL 2 ON LINE HEATER 3, SN:BS10K4MM-05B

Summary:

Group Description:

Insp. Due Date = 01/12/2012
Pred. Ret. Date = 02/04/2015

RCR = 19.1 MPY

Rem. Life (from last survey 01/12/2011) = 4.1 yrs

O C.A. Status: No
Total Caution TMLs = 9

TM L No	Location	Ctn TML	First Survey Thick Nt	First Date	Previous Survey Thick Nt	Previous Date	Last Survey Thick Nt	Last Date	Shrt Term Rate	Long Term Rate	Best Rate	Max Hist CR	Retirement Thickness	Rep TML CR	TM L Retirement Date	TM L Inspection Date
21.01	TOP	N	1.032	06/14/2007	1.007	09/08/2009	1.003	01/12/2011	3.0	8.1	8.4	11.2	0.875 U	8.1	11/01/2026	01/12/2012
21.02	LFT	N	1.000 NM	03/10/2005	1.026	09/08/2009	1.011	01/12/2011	11.2	0	0	11.2	0.875 U	11.2	03/05/2023	01/12/2012
21.03	BTM	N	1.000 NM	03/10/2005	0.988	09/08/2009	0.988 RR	01/12/2011	0	2.1	2.2	2.7	0.875 U	2.1	11/03/2064	01/12/2012
21.04	RGT	N	1.000 NM	03/10/2005	1.026	09/08/2009	1.018	01/12/2011	6.0	0	0	6.0	0.875 U	6.0	11/12/2034	01/12/2012
22.01	SIDE	Y	1.562	06/14/2007	1.562	09/08/2009	1.513	01/12/2011	36.5	13.7	12.3	36.5	0.875 U	36.5	07/05/2028	01/12/2012
23.01	END	N	1.985	06/14/2007	1.985	09/08/2009	1.985 RR	01/12/2011	0	0	0	0	0.875 U	0.1	01/27/4011	01/12/2012
24.01	END	N	1.476	06/14/2007	1.476	09/08/2009	1.476 RR	01/12/2011	0	0	0	0	0.875 U	0.1	01/27/4011	01/12/2012
25.01	SIDE	N	2.069	06/14/2007	2.069	09/08/2009	2.069 RR	01/12/2011	0	0	0	0	0.875 U	0.1	01/27/4011	01/12/2012
26.01	TOP	N	0.993	06/14/2007	0.993 RR	09/08/2009	0.993	01/12/2011	0	0	0	5.3	0.875 U	0.1	01/21/3191	01/12/2012
26.02	LFT	N	1.000 NM	03/10/2005	1.014	09/08/2009	1.014	01/12/2011	0	0	0	0	0.875 U	0.1	01/23/3401	01/12/2012
26.03	BTM	N	1.000 NM	03/10/2005	1.012	09/08/2009	1.004	01/12/2011	6.0	0	0	6.0	0.875 U	6.0	07/13/2032	01/12/2012
26.04	RGT	Y *	1.000 NM	03/10/2005	1.027	09/08/2009	0.993	01/12/2011	25.3	1.2	0	25.3	0.875 U	25.3	09/12/2015	01/12/2012
27.01	TOP	N	0.992	06/14/2007	0.992 RR	09/08/2009	0.993	01/12/2011	0	0	0	6.2	0.875 U	0.1	01/21/3191	01/12/2012
27.02	LFT	N	1.000 NM	03/10/2005	0.990	09/08/2009	0.990	01/12/2011	0	1.7	1.8	2.2	0.875 U	1.7	09/05/2078	01/12/2012
27.03	BTM	N	1.000 NM	03/10/2005	1.016	09/08/2009	1.007	01/12/2011	6.7	0	0	6.7	0.875 U	6.7	09/25/2030	01/12/2012
27.04	RGT	N	1.000 NM	03/10/2005	1.028	09/08/2009	1.028 RR	01/12/2011	0	0	0	0	0.875 U	0.1	01/24/3541	01/12/2012
28.01	END	N	2.062	06/14/2007	2.062	09/08/2009	2.055	01/12/2011	5.2	2.0	1.8	5.2	0.875 U	5.2	12/17/2237	01/12/2012
29.01	TOP	N	1.000 NM	03/10/2005		N/A	1.444	01/12/2011	N/A	0	N/A	0	0.875 U	0.1	01/27/4011	01/12/2012
30.01	END	N	1.390	06/14/2007	1.390	09/08/2009	1.390 RR	01/12/2011	0	0	0	0	0.875 U	0.1	01/27/4011	01/12/2012
31.01	TOP	N	1.012	06/14/2007	1.012 RR	09/08/2009	1.010	01/12/2011	1.5	0.6	0.5	1.5	0.875 U	1.5	01/13/2101	01/12/2012

Corrosion Monitoring Eq/. ID Analysis Report

Hawkeye Inspection, LLC
1595 So. Hwy 150, Suite F
Evanston, WY 82930
(307) -789-3540

Report Date: 01/22/2011

(Report in Inches, Corrosion Rates in MPY)
Analysis: Straight Line

Unit: LH-0010

Eq/Circ ID: LH0010-C2

Eq Type: VESSEL

Class:

CM RBI:

Design Code: S8/D1

Flange Rating: 5734 lb/in²
Design Pressure: 10000 lb/in²
Design Temperature: 180 °F

Description: COIL 2 ON LINE HEATER 3, SN:BS10K4MM-05B

Summary: Group Name:

Insp. Due Date = 01/12/2012

Pred. Ret. Date = 02/04/2015

Group Description:

RCR = 19.1 MPY

Rem. Life (from last survey 01/12/2011) = 4.1 yrs

O C.A. Status: NO

Total Caution TMLs = 9

TM	Location	Ctn	First Survey Thick	First Survey Nt	First Date	Previous Survey Thick	Previous Survey Nt	Previous Date	Last Survey Thick	Last Survey Nt	Last Date	Shrt Term Rate	Long Term Rate	Best Rate	Max Hist CR	Retirement Thickness	Rep TML CR	TM Retirement Date	TM Inspection Date
31.02	LFT	N	1.000	NM	03/10/2005	1.022		09/08/2009	1.012		01/12/2011	7.4	0	0	0	0.875	7.4	07/18/2029	01/12/2012
31.03	BTM	N	1.000	NM	03/10/2005	1.018		09/08/2009	1.018		01/12/2011	0	0	0	0	0.875	0.1	01/23/3441	01/12/2012
31.04	RGT	N	1.000	NM	03/10/2005	1.014		09/08/2009	1.011		01/12/2011	2.2	0	0	2.2	0.875	2.2	11/06/2072	01/12/2012
32.01	TOP	N	1.021		06/14/2007	1.021	RR	09/08/2009	1.024		01/12/2011	0	0	0	0	0.875	0.1	01/24/3501	01/12/2012
32.02	LFT	N	1.000	NM	03/10/2005	0.993		09/08/2009	0.993	RR	01/12/2011	0	1.2	1.3	1.6	0.875	1.2	05/14/2109	01/12/2012
32.03	BTM	N	1.000	NM	03/10/2005	1.044		09/08/2009	1.038		01/12/2011	4.5	0	0	4.5	0.875	4.5	04/03/2047	01/12/2012
32.04	RGT	N	1.000	NM	03/10/2005	1.028		09/08/2009	1.018		01/12/2011	7.4	0	0	7.4	0.875	7.4	05/10/2030	01/12/2012
33.01	SIDE	N	1.259		06/14/2007	1.259		09/08/2009	1.259		01/12/2011	0	0	0	0	0.875	0.1	01/27/4011	01/12/2012
34.01	END	N	1.949		06/14/2007	1.949		09/08/2009	1.949		01/12/2011	0	0	0	0	0.875	0.1	01/27/4011	01/12/2012
35.01	END	N	1.275		06/14/2007	1.275		09/08/2009	1.275	RR	01/12/2011	0	0	0	0	0.875	0.1	01/27/4011	01/12/2012
36.01	SIDE	N	1.906		06/14/2007	1.906		09/08/2009	1.906		01/12/2011	0	0	0	0	0.875	0.1	01/27/4011	01/12/2012
37.01	TOP	N	0.998		06/14/2007	0.998	RR	09/08/2009	1.001		01/12/2011	0	0	0	0.9	0.875	0.1	01/21/3271	01/12/2012
37.02	LFT	N	1.000	NM	03/10/2005	1.017		09/08/2009	1.017		01/12/2011	0	0	0	0	0.875	0.1	01/23/3431	01/12/2012
37.03	BTM	N	1.000	NM	03/10/2005	1.014		09/08/2009	1.009		01/12/2011	3.7	0	0	3.7	0.875	3.7	04/01/2047	01/12/2012
37.04	RGT	N	1.000	NM	03/10/2005	1.002		09/08/2009	1.001		01/12/2011	0.7	0	0	0.7	0.875	0.7	01/13/2191	01/12/2012
38.01	TOP	N	1.006		06/14/2007	1.006	RR	09/08/2009	1.014		01/12/2011	0	0	0	0	0.875	0.1	01/23/3401	01/12/2012
38.02	LFT	N	1.000	NM	03/10/2005	0.988		09/08/2009	0.988		01/12/2011	0	2.1	2.2	2.7	0.875	2.1	11/03/2064	01/12/2012
38.03	BTM	N	1.000	NM	03/10/2005	1.034		09/08/2009	1.034	RR	01/12/2011	0	0	0	0	0.875	0.1	01/24/3601	01/12/2012
38.04	RGT	N	1.000	NM	03/10/2005	1.014		09/08/2009	1.012		01/12/2011	1.5	0	0	1.5	0.875	1.5	05/15/2102	01/12/2012
39.01	SIDE	N	1.308		06/14/2007	1.308		09/08/2009	1.308		01/12/2011	0	0	0	0	0.875	0.1	01/27/4011	01/12/2012
40.01	END	Y	1.929		06/14/2007	1.929		09/08/2009	1.893		01/12/2011	26.8	10.1	9.0	26.8	0.875	26.8	01/06/2049	01/12/2012

Hawkeye Inspection, LLC
1595 So. Hwy 150, Suite F
Evanston, WY 82930
(307)-789-3540

Report Date: 01/22/2011

(Report in Inches, Corrosion Rates in MPY)
Analysis: Straight Line

Unit: LH-0010
Eq/Circ ID: LH0010-C2
Eq Type: VESSEL
Class:
CM RBI:
Design Code: S8/D1

Flange Rating: 5734 lb/in²
Design Pressure: 10000 lb/in²
Design Temperature: 180 °F

Description: COIL 2 ON LINE HEATER 3, SN:BS10K4MM-05B

Summary: Group Name: Group Description: 0 C.A. Status: No
Insp. Due Date = 01/12/2012 RCR = 19.1 MPY Rem. Life (from last survey 01/12/2011) = 4.1 yrs Total Caution TMLs = 9
Pred. Ret. Date = 02/04/2015

TM/ No	Location	Ctn	First	First	Previous	Last	Last	Shrt	Long	Best	Max	Retire	Rep	TM/	TM/	Inspection
		TM/	Survey	Thick	Thick	Thick	Thick	Term	Term	Rate	Hist	Thickness	CR	CR	CR	Date
41.01	END	Y *	1.284	06/14/2007	1.284	09/08/2009	1.167	01/12/2011	87.0	32.7	29.3	0.875	U	87.0	05/22/2014	01/12/2012
42.01	SIDE	N	1.876	06/14/2007	1.876	09/08/2009	1.876	01/12/2011	0	0	0	0.875	U	0.1	01/27/4011	01/12/2012
43.01	TOP	N	0.992	06/14/2007	0.992	09/08/2009	0.993	01/12/2011	0	0	0	0.875	U	0.1	01/21/3191	01/12/2012
43.02	LEFT	N	1.000	03/10/2005	0.974	09/08/2009	0.974	01/12/2011	0	4.5	4.8	0.875	U	4.5	01/11/2033	01/12/2012
43.03	BTM	N	1.000	03/10/2005	1.013	09/08/2009	1.013	01/12/2011	0	0	0	0.875	U	0.1	01/22/3391	01/12/2012
43.04	RGT	N	1.000	03/10/2005	0.984	09/08/2009	0.984	01/12/2011	0	2.7	2.9	0.875	U	2.7	05/27/2051	01/12/2012
44.01	TOP	N	1.006	06/14/2007	0.989	09/08/2009	0.984	01/12/2011	3.7	6.1	6.3	0.875	U	6.1	11/25/2028	01/12/2012
44.02	LET	Y *	1.000	03/10/2005	0.993	09/08/2009	0.972	01/12/2011	15.6	4.8	4.0	0.875	U	15.6	04/01/2017	01/12/2012
44.03	BTM	N	1.000	03/10/2005	1.024	09/08/2009	1.012	01/12/2011	8.9	0	0	0.875	U	8.9	06/04/2026	01/12/2012
44.04	RGT	N	1.000	03/10/2005	1.020	09/08/2009	1.020	01/12/2011	0	0	0	0.875	U	0.1	01/23/3461	01/12/2012
45.01	BTM	Y *	1.027	06/14/2007	1.027	09/08/2009	0.996	01/12/2011	23.1	8.7	7.8	0.875	U	23.1	04/08/2016	01/12/2012

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Report Date: 01/22/2011

(Report in Inches, Corrosion Rates in MPY)
Analysis: Straight Line

Unit: LH-0010
Eq/Circ ID: LH0010-C2
Design Code: S8/D1
Eq Type: VESSEL
Class:
CM RBI:

Flange Rating: 5734 lb/in²
Design Pressure: 10000 lb/in²
Design Temperature: 180 °F

Description: COIL 2 ON LINE HEATER 3, SN:BS10K4MM-05B

TML Corrosion Rates are each the Maximum of:
(A) -- Calculated Corrosion Rates x 1.00
(B) -- Default Corrosion Rate

:
:
Varies
: 0.1 MPY

Representative Corrosion Rate is the Maximum of:

(A) -- Average Corrosion Rate x 1.00 : 5.8 MPY
(B) -- Average Max 25.0% of TMLs, Min of 2 : 19.1 MPY
(C) -- Formula Corrosion Rate (Sigma = 1.28) : 6.6 MPY
(D) -- Default Corrosion Rate : 0.1 MPY

Representative Corrosion Rate = 19.1 MPY

TML thickness readings have not been compensated for high Temperatures.
TML thickness readings have been compensated for growths.

TML Life calculations are based on the Representative TML Corrosion Rate using Short Term and Long Term Corrosion Rates.

Nominal thickness is used for TML corrosion rate calculations with less than 3 surveys.

Minimum time between inspections required for corrosion rate calculation is 3 months.

TML Inspection Interval is:

(A) -- Minimum(TML Life / 2.00, 1.00 years)

Eq/Circ ID Last Survey Date is based on the LAST of the last 0% of TML survey dates (Min 1).

Eq/Circ ID Estimated life = 4.1 years from the most recent survey date.
(Estimated Life based on the ave of the earliest 0% (Min 6) TML retirement dates.)

Predicted Eq/Circ ID Retirement date is 02/04/2015

Recommended Eq/Circ UT/RT Inspection Date is 01/12/2012

UT/RT Inspection Interval is the minimum(Remaining life / 2.0, 1.00 years).

Caution TML Logic: TML Corrosion Rate > 15.0 MPY .OR. TML Remaining Life < 3.00 Years.
There are 9 Caution TMLs in this Eq/Circ ID.