



Equip. No. \_\_\_\_\_ Prov. Reg. No. **A C 38596** C.R.N. **H-8265.231** Serial No. **L-8-356** Yr. Inst. \_\_\_\_\_  
 Code/Div. **ASME VIII, DIV 1** Size: **6ft x 24ft** Manufacturer: **NATCO** Yr. Blt. **1994**  
 C. Stamp: **U** Service: **SOUR** PWHT: **NIL** Radiography: **RT-4** Insulated: **50%**

**Design & Materials Data**

**HEAD:**  
 Top Mat'l. **SA 516 70** Top Nom. **14.7mm** Top C.A. **3.2mm**  
 Btm. Mat'l. \_\_\_\_\_ Btm. Nom. \_\_\_\_\_ Btm. C.A. \_\_\_\_\_  
**CHANNEL:**  
 Material: \_\_\_\_\_ Nominal: \_\_\_\_\_ C.A. \_\_\_\_\_  
**BOOT**  
 Head Mat'l. \_\_\_\_\_ Head Nom. \_\_\_\_\_ Head C.A. \_\_\_\_\_  
 Shell Mat'l. \_\_\_\_\_ Shell Nom. \_\_\_\_\_ Shell C.A. \_\_\_\_\_  
**SHELL**  
 Material: **SA 516 70** Nominal: **8.4mm** C.A. **3.2mm**  
 MAWP Shell Side: **483 kPa** @ Temp. **93°C**  
 MAWP Tube Side: \_\_\_\_\_ @ Temp. \_\_\_\_\_

CLIENT	CANADIAN NATURAL RESOURCES	
FACILITY	FLAT ROCK BATTERY LSD 15-20-85-17 W6M	
ITEM	HEAT TREATER	
BY: KB	DATE: 02/2011	DWG.# 16

# UTS DATA

**CLIENT** CANADIAN NATURAL RESOURCES  
**EQUIPMENT** HEAT TREATER  
**CRN#** H-8265.231  
**PROV REG** C 38596  
**TESTEI** ON STREAM

**FACILITY** FLAT ROCK BATTERY  
**SERVICE** SOUR  
**LOCATION** 15-20-85-17 W6M  
**RTD JOB #** 10.116029  
**REFER TO DRAWING** 16

Test Point	THICKNESS DATA				Flag	T-Min	C.A.	Nom.	Short Term	Long Term	Ave. mm/py	Retirement Date			
1610															
Description:	BOTTOM HEAD														
	2011	2	2015	3											
Min. Thick.	14		14		11.50		3.2	14.70	0	0					
Average:	14.3		14.3									0	0		
Analysis:															
1615															
Description:	BOTTOM SHELL														
	2011	2	2015	3											
Min. Thick.	8.4		8.1		5.20	5.2	3.2	8.40	.07	.07					
Average:	8.5		8.3									.05	.05	2054	
Analysis:															
1620															
Description:	UPPER SHELL														
	2011	2	2015	3											
Min. Thick.	8.7		8.7		5.20		3.2	8.40	0	0					
Average:	8.8		8.8									0	0		
Analysis:															
1625															
Description:	MID SHELL														
	2011	2	2015	3											
Min. Thick.	8.8		8.6		5.20		3.2	8.40	.05	.05					
Average:	8.9		8.8									.02	.02		
Analysis:															
1630															
Description:	LOWER SHELL														
	2011	2	2015	3											
Min. Thick.	8.6		8.4		5.20		3.2	8.40	.05	.05					
Average:	8.8		8.7									.02	.02		
Analysis:															
1635															
Description:	BOTTOM SHELL														
	2011	2	2015	3											
Min. Thick.	8.4		8.3		5.20		3.2	8.40	.02	.02					
Average:	8.6		8.5									.02	.02		
Analysis:															

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**FACILITY** FLAT ROCK BATTERY  
**SERVICE** SOUR  
**LOCATION** 15-20-85-17 W6M  
**RTD JOB #** 10.116029  
**REFER TO DRAWING** 16

Test Point	THICKNESS DATA				Flag	T-Min	C.A.	Nom.	Short Term	Long Term	Ave. mm/py	Retirement Date
1640	Description: BOTTOM HEAD											
	2011	2	2015	3								
Min. Thick.	13.6		13.5		11.50	5.2	3.2	14.70	.02		.02	
Average:	14		13.8						.05		.05	2347
Analysis:												
1650	Description: 3" 90° NOZZLE											
	2011	2	2015	3								
Min. Thick.	7		6.4		4.40	1.6	3.2	7.60	.15		.15	
Average:	7.3		6.7						.15		.15	2047
Analysis:												
1655	Description: 3" CIRC											
	2011	2	2015	3								
Min. Thick.	6		5.7		2.30	1.6	3.2	5.50	.07		.07	
Average:	6.2		6						.05		.05	2075
Analysis:												
1660	Description: 3" 90° NOZZLE											
	2011	2	2015	3								
Min. Thick.	7		6.8		4.40	1.6	3.2	7.60	.05		.05	
Average:	7.3		7.1						.05		.05	2119
Analysis:												
1675	Description: 3" 90° NOZZLE											
	2011	2	2015	3								
Min. Thick.	6.8		6.7		4.40	1.6	3.2	7.60	.02		.02	
Average:	7		6.9						.02		.02	2219
Analysis:												

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**FACILITY** FLAT ROCK BATTERY  
**SERVICE** SOUR  
**LOCATION** 15-20-85-17 W6M  
**RTD JOB #** 10.116029  
**REFER TO DRAWING** 16

Test Point	THICKNESS DATA				Flag	T-Min	C.A.	Nom.	Short Term	Long Term	Ave. mm/py	Retirement Date
1605												
Description: 4" 90° ELBOW												
	2011	2	2015	3								
Min. Thick.	6.9		6.8		5.25		.8	6.00	.02		.02	
Average:	7.1		7						.02		.02	
Analysis:												
1665												
Description: 3" 90° ELBOW												
	2011	2	2015	3								
Min. Thick.	5.8		5.7		4.81		.7	5.50	.02		.02	
Average:	6		5.9						.02		.02	
Analysis:												
1670												
Description: 3" 90° ELBOW												
	2011	2	2015	3								
Min. Thick.	7.6		7.6		4.81		.7	5.50	0		0	
Average:	7.9		7.9						0		0	
Analysis:												
1680												
Description: 2" 90° ELBOW												
	2011	2	2015	3								
Min. Thick.	4		4		3.41		.5	3.90	0		0	
Average:	4.5		4.5						0		0	
Analysis: 02/2011 MIN SCAN @ 6:00 O'CLOCK.												
1685												
Description: 3" 90° ELBOW												
	2011	2	2015	3								
Min. Thick.	5.7		5.7		4.81		.7	5.50	0		0	
Average:	6		5.9						.02		.02	
Analysis:												
1690												
Description: 3" 90° ELBOW												
	2011	2	2015	3								
Min. Thick.	5.9		5.8		4.81		.7	5.50	.02		.02	
Average:	6		5.9						.02		.02	
Analysis:												