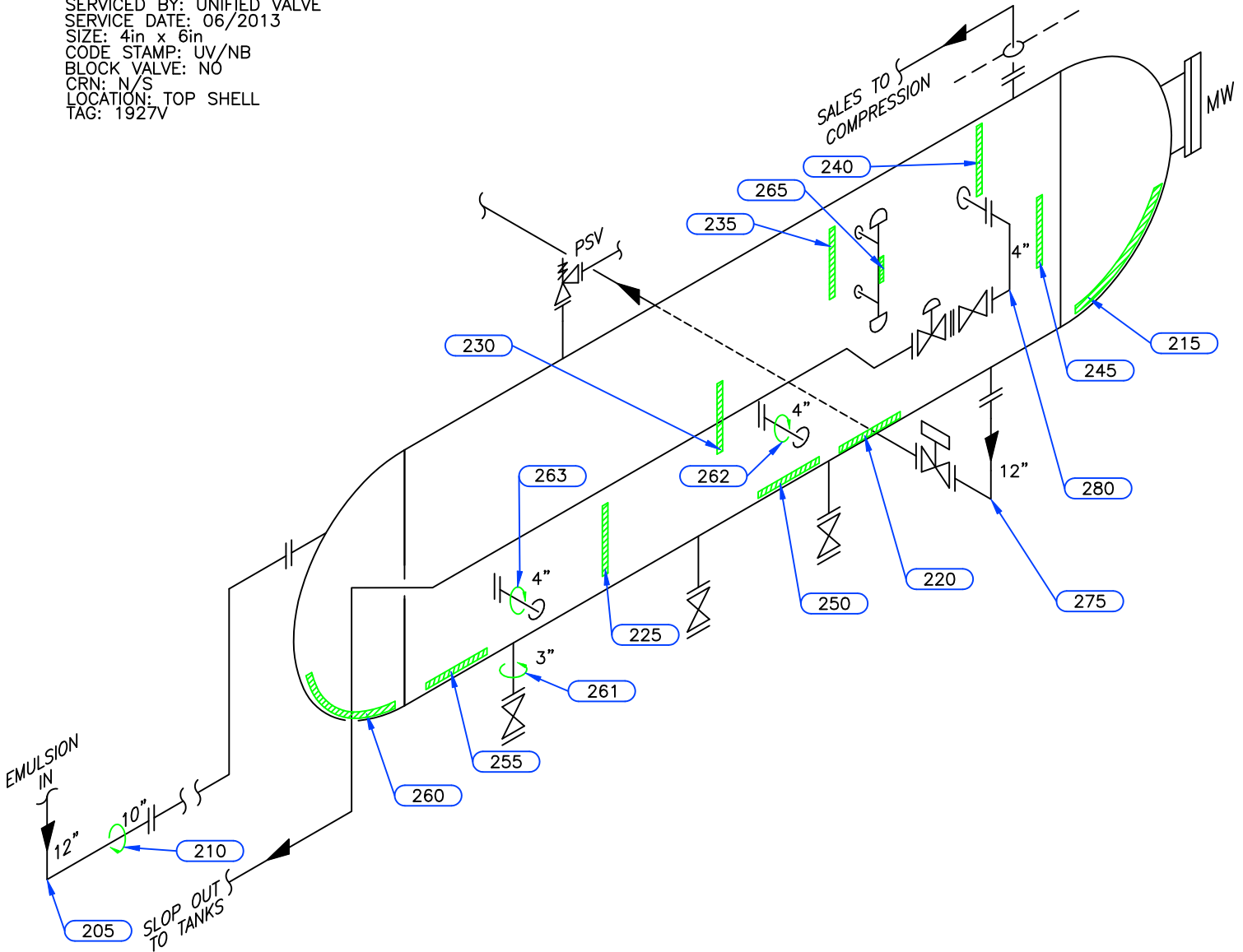


PSV DATA

MFG: FARRIS
 MODEL: 26PA10-120-55M
 SERIAL: CE-27748-A10
 SET PRES: 862 kPa
 CAPACITY: 16930 scfm
 SERVICED BY: UNIFIED VALVE
 SERVICE DATE: 06/2013
 SIZE: 4in x 6in
 CODE STAMP: UV/NB
 BLOCK VALVE: NO
 CRN: N/S
 LOCATION: TOP SHELL
 TAG: 1927V



Equip. No. _____ Prov. Reg. No. **A 225408** C.R.N. **F-5480.21** Serial No. **85C-3422-01** Yr. Inst. _____
 Code/Div. **ASME VIII, DIV 1** Size: **12ft x 24ft** Manufacturer: **ALCO GAS & OIL** Yr. Blt. **1985**
 C. Stamp: **U** Service: **SOUR** PWHT: **NIL** Radiography: **RT-1** Insulated: **NO**

Design & Materials Data

HEAD:
 Top Mat'l. **SA 516 70** Top Nom. **17.2mm** Top C.A. **1.6mm**
 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: **19.0mm** C.A. **1.6mm**
 MAWP Shell Side: **862 kPa** @ Temp. **66°C**
 MAWP Tube Side: _____ @ Temp. _____

CLIENT	CANADIAN NATURAL RESOURCES	
FACILITY	MILLIGAN BATTERY LSD b-63-G/94-H-02	
ITEM	FREE WATER KNOCKOUT	
BY: CS	DATE: 12/2008	DWG.# 2

UTS DATA

CLIENT CANADIAN NATURAL RESOURCES
EQUIPMENT FREE WATER KNOCKOUT
CRN: F-5480.21
PROV REG A 225408
TESTE ON STREAM

FACILITY MILLIGAN BATTERY
SERVICE SOUR
LOCATION b-63-G/94-H-02
RTD JOB # 10.113250
REFER TO DRAWING 2

Test Point	THICKNESS DATA				Flag	T-Min	C.A.	Nom.	Short Term	Long Term	Ave. mm/py	Retirement Date
215												
Description:	LOWER HEAD											
	2008	12	2012	9								
Min. Thick.	20.2		20.2		15.60		1.6	17.20	0		0	
Average:	21		21						0		0	
Analysis:	09/2012 MIN SCAN AT KNUCKLE. INCLUSIONS PRESENT AT 9mm											
220												
Description:	BOTTOM SHELL											
	2008	12	2012	9								
Min. Thick.	19.4		19.4		17.40		1.6	19.00	0		0	
Average:	19.5		19.5						0		0	
Analysis:												
225												
Description:	LOWER SHELL											
	2008	12	2012	9								
Min. Thick.	19.4		19.4		17.40		1.6	19.00	0		0	
Average:	19.5		19.5						0		0	
Analysis:												
230												
Description:	MID SHELL											
	2008	12	2012	9								
Min. Thick.	19.1		19.1		17.40		1.6	19.00	0		0	
Average:	19.2		19.2						0		0	
Analysis:												
235												
Description:	MID SHELL											
	2008	12	2012	9								
Min. Thick.	19.5		19.5		17.40		1.6	19.00	0		0	
Average:	19.6		19.6						0		0	
Analysis:												
240												
Description:	UPPER SHELL											
	2008	12	2012	9								
Min. Thick.	19.7		19.7		17.40		1.6	19.00	0		0	
Average:	19.8		19.8						0		0	
Analysis:												

UTS DATA

CLIENT CANADIAN NATURAL RESOURCES
EQUIPMENT FREE WATER KNOCKOUT
CRN: F-5480.21
PROV REG A 225408
TESTE ON STREAM

FACILITY MILLIGAN BATTERY
SERVICE SOUR
LOCATION b-63-G/94-H-02
RTD JOB # 10.113250
REFER TO DRAWING 2

Test Point	THICKNESS DATA				Flag	T-Min	C.A.	Nom.	Short Term	Long Term	Ave. mm/py	Retirement Date
245	Description: MID SHELL											
	2008	12	2012	9								
Min. Thick.	19.7		19.7		17.40		1.6	19.00	0	0		
Average:	19.8		19.8						0	0		
Analysis:												
250	Description: BOTTOM SHELL											
	2008	12	2012	9								
Min. Thick.	19		19		17.40		1.6	19.00	0	0		
Average:	19		19						0	0		
Analysis:												
255	Description: BOTTOM SHELL											
	2008	12	2012	9								
Min. Thick.	19.1		19.1		17.40		1.6	19.00	0	0		
Average:	19.3		19.3						0	0		
Analysis:												
260	Description: LOWER HEAD											
	2008	12	2012	9								
Min. Thick.	20.2		20.2		15.60		1.6	17.20	0	0		
Average:	21		21						0	0		
Analysis:	09/2012 MIN SCAN AT KNUCKLE											
261	Description: 3" 90° NOZZLE											
	2013	7										
Min. Thick.	7.6				13.60	1.6	1.6	15.20				
Average:	10.5								0	0		2035
Analysis:	07/2013 CORROSION RING, MID NOZZLE. THICKNESS CALCULATIONS CARRIED OUT TO 0.4mm BUT MINIMUM CODE IS MAINTAINED AT 1.6mm											
262	Description: 4" 90° NOZZLE											
	2013	7										
Min. Thick.	16.6				15.50		1.6	17.10				
Average:	16.8								0	0		
Analysis:												

UTS DATA

CLIENT CANADIAN NATURAL RESOURCES
EQUIPMENT FREE WATER KNOCKOUT
CRN: F-5480.21
PROV REG A 225408
TESTE ON STREAM

FACILITY MILLIGAN BATTERY
SERVICE SOUR
LOCATION b-63-G/94-H-02
RTD JOB # 10.113250
REFER TO DRAWING 2

Test Point	THICKNESS DATA				Flag	T-Min	C.A.	Nom.	Short Term	Long Term	Ave. mm/py	Retirement Date
263												
Description:	4" 90° NOZZLE											
	2013 7											
Min. Thick.	15.4			15.50	1.6	1.6	17.10					
Average:	15.8							0	0			2240
Analysis:	07/2013 THICKNESS CALCULATIONS CARRIED OUT TO 0.5mm BUT MINIMUM CODE MAINTAINED AT 1.6mm											

UTS DATA

CLIENT CANADIAN NATURAL RESOURCES
EQUIPMENT FREE WATER KNOCKOUT PIPING
CRN:
PROV REG
TESTE ON STREAM

FACILITY MILLIGAN BATTERY
SERVICE SOUR
LOCATION b-63-G/94-H-02
RTD JOB # 10.113250
REFER TO DRAWING 2

Test Point	THICKNESS DATA				Flag	T-Min	C.A.	Nom.	Short Term	Long Term	Ave. mm/py	Retirement Date
<hr/>												
205												
Description:	12" 90° ELBOW											
	2008	12	2012	9								
Min. Thick.	11.6		11.6		11.11		1.6	12.70	0		0	
Average:	12.1		12.1						0		0	
Analysis:	2008/12 MIN SCAN @ APEX.											
<hr/>												
210												
Description:	10" CIRC BAND											
	2008	12	2012	9								
Min. Thick.	12.1		12.1		11.11		1.6	12.70	0		0	
Average:	12.7		12.7						0		0	
Analysis:	09/2012 MIN SCAN AT 6:00 POSITION											
<hr/>												
265												
Description:	4" VERTICAL BAND											
	2008	12	2012	9								
Min. Thick.	8.8		8.8		7.53		1.1	8.60	0		0	
Average:	9		9						0		0	
Analysis:												
<hr/>												
275												
Description:	12" 90° ELBOW											
	2008	12	2012	9								
Min. Thick.	9.7		9.7		9.01		1.3	10.30	0		0	
Average:	10		10						0		0	
Analysis:												
<hr/>												
280												
Description:	4" 90° ELBOW											
	2012	9										
Min. Thick.	5.6				5.25		.8	6.00				
Average:	5.9								0		0	
Analysis:												