

Client: Petro-Canada Oil and Gas				
Project: Minehead Sour Water System Debottleneck		Project Number: 04C4740		
Inspector: M. Fester				
VENDOR INFO	PRIME SUPPLIER	SUBSUPPLIER		
Purchase Order No:	4740 Rental Vessel			
Name:	CSI Coating Systems Inc.			
Location:	Nisku, Alberta			
Contact:	Wayne Duncan			
Phone:	780-955-2856			
Shop Order No:				
EQUIPMENT DESCRIPTION & TAG NUMBERS:		DELIVERY SCHEDULED		
One 5' Diameter x 20' Long Vessel internally coated with Devoe 253.		Required by PO:	TBD	
		Current Promise:	TBD	
		STATUS	%	Current Completion Date
		Engineering	100	
		Materials	100	
		Fabrication	100	
		Inspection	<input checked="" type="checkbox"/> Complete	

SUMMARY OF ACTIVITIES: (Number all report paragraphs consecutively regardless of which heading they fall under.)

Purpose Of Visit: Surface Preparation, and Coating Application, inspection.

AREA OF CONCERN: NONE

Supplier Non-Conformances:		New SNCR's This Report =		Total SNCR's Issued =	
SNCR Number	Brief Description	Date Issued	Date Closed		

Quality Surveillance Issues: N / A

Engineering Status: Complete

Material Status: Complete

Fabrication Status: Complete

Written By/Date	Robert Fraser - November 17, 2004	Hrs used this report period:	7.0 / 120 Km
Reviewed By/Date		Hrs used to date:	7.0 / 120 Km

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Inspection Status:

The external surface was previously coated and the vessel had been installed in a skidded building. The vessel was blasted, and coated, at Marr-Quinn's facility in Nisku, Alberta. A portable indirect fired heater will be used and run 24 hours a day until the coating has been completed.

SURFACE PREPARATION INSPECTION- S/N # 138-02-04A

On November 04, 2004, our inspector checked the surface preparation on the Separator vessel. The substrate condition was checked and the inside of the inlet deflector was not back welded. The applicator advised that this area will be grouted after the first coat application. The internal surface met the requirements of an SSPC SP5 White Metal blast. The external surface was not blasted. The separator vessel was blasted with Target Green Diamond abrasive. The abrasive cleanliness was visually checked and was deemed to be acceptable. The surface profile was measured using Testex X-Coarse Tape. The internal surface profile was measured and found to be 3.7 mils. The vessel was blown out, with compressed air, in order to remove the remainder of the blast media. The surface preparation was deemed to be acceptable. At the time of inspection, the vessel had been left uncoated for 0 to 4 hours. The ambient conditions, at the time of inspection, were as follows:

Time	Air Temp.	Wet Bulb Temp.	Relative Humidity	Steel Temp.	Dew Point
1:00 p.m.	19.4°C	10.1°C	25%	19.0°C	-0.4°C

No moisture or contaminants were observed. Moisture traps were in operation on the compressor.

REVIEW OF BLASTING QC DOCUMENTATION

The applicator's QC surface preparation documentation was reviewed and found to be in order.

REVIEW OF INTERNAL COATING MATERIAL

Verified container batch numbers for the internal Devoe 253 coating.

First Coat: The base batch number was 66643 HU4K
The catalyst batch number was 64619 HU4K
The coating colour was white.

Second Coat: The base batch number was 65969 HU4K
The catalyst batch number was 64619 HU4K
The coating colour was blue.

Third Coat: The base batch number was 65969 HU4K
The catalyst batch number was 64619 HU4K
The coating colour was blue.

Thinner: The coating was not thinned

The coating storage conditions were checked and deemed to be acceptable.

The applicator has been approved by the coating manufacturer to apply this product.

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VERIFICATION OF INTERNAL COATING DRY FILM THICKNESS – S/N # 138-02-04A

On November 06, 2004, our inspector checked the dry film thickness of the first coat of the Devoe 253 coating applied internally to the separator vessel. The coating was applied, in one coat, using an airless spray system. The coating colour was white. The coating D.F.T., on the head, ranged from 3.2 mils to 6.6 mils with an average of 4.7 mils. The coating D.F.T., on the shell, ranged from 3.0 mils to 9.1 mils with an average of 5.0 mils. The coating D.F.T., on the boot, ranged from 2.1 mils to 8.1 mils with an average of 3.2 mils. The coating D.F.T., on the manway end, ranged from 1.3 mils to 8.1 mils with an average of 4.6 mils. The D.F.T., in the nozzles, was too wet to check at the time of inspection. The applicator had applied Devwrap 142 grout to the welds on the inside of the inlet deflector. The ambient conditions were monitored and were deemed to be acceptable. The coating was visually examined and was deemed to be acceptable.

On November 08, 2004, our inspector checked the dry film thickness of the final coat of the Devoe 253 coating applied internally to the vessel. The coating was applied, in three coats, using an airless spray system. The final coating colour was blue. The coating D.F.T., on the head, ranged from 8.3 mils to 16.6 mils with an average of 12.3 mils. The coating D.F.T., on the shell, ranged from 8.2 mils to 17.6 mils with an average of 12.6 mils. The coating D.F.T., on the boot, ranged from 8.2 mils to 15.7 mils with an average of 11.6 mils. The coating D.F.T., on the manway end, ranged from 8.7 mils to 15.0 mils with an average of 11.3 mils. The coating D.F.T., in the nozzles, ranged from 8.7 mils to 14.7 mils with an average of 11.1 mils. The coating D.F.T., on the flange faces, ranged from 3.6 mils to 6.8 mils with an average of 5.1 mils. The coating was visually examined and was deemed to be acceptable.

WITNESS HOLIDAY TESTING – INTERNAL COATING

The internal Devoe 253 coating, in the vessel, was holiday tested on November 08, 2004, using a SPY Low Voltage Thin Film Wet Sponge tester. The tester was set at 67.5 volts with a resistance of 80,000 ohms. Water, and Kodak Photo-Flo, was used as a surfactant. A total of 5 coating holidays were observed. These areas were sanded down, wiped clean with MEK, and repaired using Devwrap 142 grout. The repairs areas were re-holiday tested and were deemed to be holiday free. The repairs were monitored and were deemed to be acceptable.

COATING CURE – INTERNAL COATING

The coating cure was checked on November 08, 2004. The coating cure was checked using Time at Temperature. The coating cure was deemed to be incomplete at the time of inspection. The applicator advised that the vessel will remain under forced heat until the coating cure is complete.

REVIEW OF APPLICATION QC DATA

The applicator's QC coating application documentation was reviewed and found to be in order.

COMMENTS

This concludes our involvement with the coating inspection of the separator vessel.



SUPPLIER QUALITY SURVEILLANCE PROCEDURES

SHIPPING RELEASE NOTICE

Assignment No.: 04 - C - 4740

Release No.: 001

Date of Release: Nov. 17, 2004

Client:		Petro-Canada Oil & Gas		Colt Job No.:	04 - C - 4740
PO No:		4740 Rental Vessel		Inspector:	M. Fester - NACE
VENDOR INFO:		PRIME SUPPLIER		SUB-SUPPLIER	
Name:		CSI Coating Systems Inc.			
Location:		Nisku, Alberta			
Contact:		Wayne Duncan			
Shop Order No.		780-055-2856			

Item No.	Tag No.	Qty	Item / Equipment Description	Data Sheet No. or PO Revision No.
1	138-02-04A	1	One 5'Diameter x 20' Long Phase Separator Vessel internally coated with Devoc 253.	

The above described item / equipment is released subject to completion of the following work:
THIS RELEASE COVERS COATING INSPECTION ONLY.

Partial Release: Yes ☐ No ☒ Order Complete: Yes ☒ No ☐

The signing of this release does not relieve the Vendor from responsibility for quality and all other requirements of the purchase order and associated documents.

* The Vendor is to contact the Colt Project Expediter prior to shipping

Released by: Robert Fraser	Supplier Acknowledgement:	CSI Coating Systems Inc.
Signature:	Signature:	