



Crescent Point

VISUAL INSPECTION REPORT-PRESSURE VESSEL

| | | | | | | | | | | | | |
|---|--|----------|---|--|---------------------------------------|-----------|--|--|----------|---|----------|--|
| Inspection Type <input checked="" type="checkbox"/> External <input checked="" type="checkbox"/> Internal | | | | | | | | | | | | |
| Date: | June 27, 2017 | | | | Description: | | <input checked="" type="checkbox"/> Vessel <input type="checkbox"/> Exchanger <input type="checkbox"/> Furnace <input type="checkbox"/> Boiler | | | | | |
| Inspector: | Ryan Hogg | | | | Unit #: | | Equip #: | | 848659 | | | |
| Agent Co: | 101292687 Sakatchewan LTD. | | | | Equip. Name: | | Treater (96" X 30' Horizontal) | | | | | |
| Location/LSD | BAT/09-32-001-28W1 | | | | CRN #: | | N7780.123 | | | | | |
| Province: | Manitoba | | | | Manufacturer: | | Sivalls Inc. | | | | | |
| Area: | Peirson | | | | Year Built: | | 2010 | | S/N: | | 117025 | |
| Subarea: | Run 9 - Pierson | | | | Jurisdiction #: | | NB 16539 | | PWHT | | No | |
| Service | <input type="checkbox"/> Sweet <input checked="" type="checkbox"/> Sour <input type="checkbox"/> Other: _____ | | | | PSV Location | | Top of shell | | MDMT | | -20 F | |
| Vessel MAWP | 75 PSI | | | | Vessel MAWT | | 230 F | | RT | | | |
| PSV Data | Set P | CPE# | Manufacturer | S/N | In. Sz. | Out. Sz. | Serv. Co. | Serv. Date | IV | CSO | Capacity | |
| Shell Side | 75PSI | 6759 | Taylor | 03316 2-40 | 3" | 3" | EMS | 06-2017 | N | N | 2822scfm | |
| Shell Side | 75PSI | 6760 | Taylor | 03316 2-41 | 3" | 3" | EMS | 06-2017 | N | N | 2822scfm | |
| Other | | | | | | | | | Y/N | Y/N | | |
| Components | | Material | Nominal t | CA | Retire t | Lowest t | t OK? | Calc. t-min | Comment | | | |
| | Shell | | | | | | <input type="checkbox"/> Y <input type="checkbox"/> N | | | | | |
| | Head | | | | | | <input type="checkbox"/> Y <input type="checkbox"/> N | | | | | |
| | Channel | | | | | | <input type="checkbox"/> Y <input type="checkbox"/> N | | | | | |
| | Tube | | | | | | <input type="checkbox"/> Y <input type="checkbox"/> N | | | | | |
| | Other | | | | | | <input type="checkbox"/> Y <input type="checkbox"/> N | | Specify: | | | |
| External Visual Inspection | | | | | | | | | | | | |
| Orientation | <input checked="" type="checkbox"/> Hor. <input type="checkbox"/> Ver. | | Foundation | <input type="checkbox"/> Concrete <input type="checkbox"/> Gravel <input type="checkbox"/> Timbers <input checked="" type="checkbox"/> Steel <input type="checkbox"/> Other: | | | | Condition Secure to skid | | | | |
| Support | <input checked="" type="checkbox"/> Saddle | | <input checked="" type="checkbox"/> Seal-welded | | <input type="checkbox"/> Free to Move | | | Condition Bolted to skid floor, skid on piles | | | | |
| | <input type="checkbox"/> Skirt | | <input type="checkbox"/> Free of debris | | Comment: | | | Condition | | | | |
| | <input type="checkbox"/> Hangers | | <input type="checkbox"/> Secure | | Comment: | | | Condition | | | | |
| | <input type="checkbox"/> Other | | Specify: | | | Condition | | | | | | |
| Overall | General Condition Firetube head outside building | | | | | | | Electrical grounding: <input type="checkbox"/> Direct <input checked="" type="checkbox"/> Indirect <input type="checkbox"/> None | | | | |
| Ext. Surface | <input checked="" type="checkbox"/> Painted <input type="checkbox"/> Insulated <input type="checkbox"/> Fire-proofed <input type="checkbox"/> Cladded <input type="checkbox"/> Other : _____ Condition Acceptable with stains and minor scrapes on shell | | | | | | | | | | | |
| Ext. Fixtures | <input type="checkbox"/> Ladder <input type="checkbox"/> Platform(s) <input type="checkbox"/> Other: | | | | | | Condition | | | | | |
| Nozzles | <input checked="" type="checkbox"/> Manway <input type="checkbox"/> Port | | | Size: FTs and 20" MWs | | | <input type="checkbox"/> Reinforcement Pads used | | | <input type="checkbox"/> Weep Holes Present | | |



VISUAL INSPECTION REPORT-PRESSURE VESSEL

| | | | | |
|---|---|--|---|---------------------------------|
| | Comment: No signs of leaks on manways | | | |
| Davit Arm | <input checked="" type="checkbox"/> Present | <input checked="" type="checkbox"/> Greased | <input checked="" type="checkbox"/> Double Nut | Condition Secure on side manway |
| Piping | <input checked="" type="checkbox"/> PSV | <input checked="" type="checkbox"/> Supported <input checked="" type="checkbox"/> Joined per code | <input checked="" type="checkbox"/> Drains Properly <input type="checkbox"/> Well Coated | Comment |
| | <input checked="" type="checkbox"/> Inlet | <input checked="" type="checkbox"/> Supported <input checked="" type="checkbox"/> Joined per code | <input checked="" type="checkbox"/> Free from leaks <input type="checkbox"/> Well Coated | Comment |
| | <input checked="" type="checkbox"/> Outlet | <input checked="" type="checkbox"/> Supported <input type="checkbox"/> Joined per code | <input checked="" type="checkbox"/> Free from leaks <input type="checkbox"/> Well Coated | Comment |
| | <input checked="" type="checkbox"/> Drain | <input checked="" type="checkbox"/> Supported <input checked="" type="checkbox"/> Joined per code | <input checked="" type="checkbox"/> Free from leaks <input type="checkbox"/> Well Coated | Comment |
| | <input checked="" type="checkbox"/> Instrumentation | <input checked="" type="checkbox"/> Supported <input checked="" type="checkbox"/> Joined per code | <input type="checkbox"/> Free from leaks/kinks | Comment |
| | <input type="checkbox"/> Process Fluid Identified | | <input type="checkbox"/> Flow direction marked | Comment |
| Valves | <input checked="" type="checkbox"/> Manual Isolation Valve | | <input checked="" type="checkbox"/> Free from leaks | Comment |
| | <input type="checkbox"/> Automated Control Valve | | <input type="checkbox"/> Free from leaks | Comment |
| | <input type="checkbox"/> Vents and Drain plugged | | <input type="checkbox"/> Free from leaks | Comment |
| Gauges | <input checked="" type="checkbox"/> Pressure | Reading: 0 | Condition Clean and readable | |
| | <input checked="" type="checkbox"/> Temperature | Reading 10 C | Condition Clean and readable | |
| Sight Glass | <input type="checkbox"/> Fluid Level | Reading: | Condition | |
| External Inspection Notes: No external damages were noted during the external inspection. 8X30 HDX Treater. PSV off for servicing at the time of inspection. External stains on firetube head. | | | | |
| Internal Visual Inspection | | | | |
| Date: | June 27, 2017 | Inspector | Ryan Hogg | |
| Scope: | A visual internal (VI) inspection was performed on all accessible shell and head surfaces, nozzles, welds, etc. | | | |
| Access: | <input checked="" type="checkbox"/> Manway <input type="checkbox"/> Hand-hole <input type="checkbox"/> Inspection Nozzle Diameter: 20"s and Firetube | | | |
| Opening | Gasket Surfaces: | <input checked="" type="checkbox"/> Compliant with code | Comment | |
| | Nozzle Tube: | <input checked="" type="checkbox"/> No pitting, erosion, etc. | Comment | |
| Shell and Head Surfaces | Uniform Corrosion: | <input checked="" type="checkbox"/> Insignificant amount | Comment | |
| | Pitting Corrosion: | <input checked="" type="checkbox"/> None noted | Comment | |
| | Erosion: | <input checked="" type="checkbox"/> None noted | Comment | |
| | Mechanical Damage: | <input type="checkbox"/> None noted | Comment Minor coating chips | |
| Welds | Uniform Corrosion: | <input checked="" type="checkbox"/> Insignificant amount | Comment | |
| | Pitting Corrosion: | <input checked="" type="checkbox"/> None noted | Comment | |
| | Welding Defects: | <input checked="" type="checkbox"/> None noted | Comment | |
| NDE | <input checked="" type="checkbox"/> NDT was performed by: GB Inspection | | Extent: Firetube | |
| | NDE Type: MPI NDE Type: UT Repair pitting – Lace welding and MPI post repair | | | |



Crescent Point

VISUAL INSPECTION REPORT-PRESSURE VESSEL

| | | | |
|------------------------------------|--|---|--|
| | Results: Firetube had 25 locations along top of leg with pitts to 0.150" deep, attachment bracket on tube had a crack on the corner of the weld. Breeching flange on burner was damaged at shop and straightened. Repairs were MPI'd and tube was supercoated and returned to service. | | |
| Nozzles | Obstructions: | <input checked="" type="checkbox"/> None noted | Comment |
| | Corrosion: | <input checked="" type="checkbox"/> None noted | Comment |
| | Erosion: | <input checked="" type="checkbox"/> None noted | Comment |
| Attachments | <input type="checkbox"/> Vortex breaker | <input type="checkbox"/> Secure <input type="checkbox"/> Good Condition | Comment |
| | <input type="checkbox"/> Impingement plate | <input type="checkbox"/> Secure <input type="checkbox"/> Good Condition | Comment |
| | <input type="checkbox"/> Suction tube | <input type="checkbox"/> Secure <input type="checkbox"/> Good Condition | Comment |
| | <input type="checkbox"/> Demister | <input type="checkbox"/> Secure <input type="checkbox"/> Good Condition | Comment |
| | <input checked="" type="checkbox"/> Other: Baffles | <input checked="" type="checkbox"/> Secure <input checked="" type="checkbox"/> Good Condition | Comment Internally coated, no damages |
| Detailed Inspection Summary | <p>Treater is in acceptable condition for continued service at the time of inspection after coating repairs. Coating Internals were 100% coated. Coating is getting at end of life – multiple areas or runs, and devoe repairs. Baffles, supports, oil box and piping were all secure and in acceptable condition. All attachments were coated.</p> <p>KO section - attachments, welds, and piping were all secure and in acceptable condition. Welds, head, shell and manway were free from damages. Trays in center baffle have been previously removed. 1 - 8" area of coating cracking along head weld at 5:00, previous devoe repairs on head adjacent to manway were lifting and peeling, drain nozzle had 1" scrape on edge to shell, 3" nozzle on shell had minor coating peel along the attachment weld, 3 - 1/4" chips in shell below center baffle, various scrapes and peels in 2ft x 3 ft area beneath baffle, 3 marks/scrapes along the edge of the side manway – all repaired with Devoe.</p> <p>Firetube section piping was secure and in acceptable condition. Drain lines were coated internally. Firetube manway throat had minor scrapes along the surfaces edge, 3 areas of 1/4" chips on the shell below the firetube supports adjacent to the center baffle, firetube supports to the shell coating was cracking on all supports along the welds, coating around anode nozzle weld to shell was cracking throughout, center weld had 3 ft of coating cracking at 5:00-7:00, areas on either side of the firetube on shell of chips and marks, front head to shell weld had 3 ft section of coating peels from 2:00 to 5:00 - All areas of coating damages were repaired with Devoe.</p> <p>Firetube had 25 locations along top of leg with pitts to 0.150" deep, attachment bracket on tube had a crack on the corner of the weld. Breeching flange on burner was damaged at shop and straightened. Repairs were MPI'd and tube was supercoated and returned to service. PSV was off site for servicing at the time of inspection. All coating damages were repaired.</p> | | |
| Recommended Actions | Treater was in acceptable condition for service. Vessel coating is deteriorating – recoat possible in 3-6 yrs. | | |
| Integrity Status | Suitable for Continued Service <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Immediate Repairs Required <input checked="" type="checkbox"/> Future Repairs Required <input type="checkbox"/> Replace | | |
| Inventory Status | <input checked="" type="checkbox"/> Active <input type="checkbox"/> Out of Service <input type="checkbox"/> Surplus <input type="checkbox"/> Rental <input type="checkbox"/> Scrap <input type="checkbox"/> Action Items Completed | | |

Visual External Inspection Interval: 3 yrs OR Changed to: _____ yrs.

Visual Internal Inspection Interval: 3 yrs OR Changed to: _____ yrs.

Ultrasonic Inspection Interval: yrs OR Changed to: _____ yrs.

PSV Interval: 3 yrs OR Changed to: _____ yrs.

☐ Class 1 ☒ Class 2 IPV/IBPV Certificate #: **PEI 128**



Crescent Point

VISUAL INSPECTION REPORT-PRESSURE VESSEL







