

| General Tank Information  |  |                                       |  |
|---|--|---------------------------------------|--|
| District: Shallow Gas: Shackleton   |  | E-tag Number: <b>E48766</b>           | Serial #: 7439   |
| Area & Facility: <b>Lancer</b>  |  | Location (LSD): 12-26-021-20W3M       |  |
| Inspector Name: John David Kobelsky   |  | Company: Integrity Testing Services   | Insp. Date: Aug 12, 2014   |
| Tank Name / Purpose: 750 BBL Produced Water Tank  |  |                                       | AST: <input checked="" type="checkbox"/> UST: <input type="checkbox"/> |
| Inspection: External: <input checked="" type="checkbox"/> Internal: <input checked="" type="checkbox"/> |  |                                       |  |
| <b>Status:</b> In Service (including new tanks): <input checked="" type="checkbox"/>                    |  | Out Service: <input type="checkbox"/> | Stock: <input type="checkbox"/>  |

| Tank Static Data  |   |
|---|---|
| <b>Fill out all forms as completely as possible. All information is important!</b>  |   |
| Manufacturer: Argo Sales Ltd.   | Year Built: 2007  |
| Tank: Single Wall: <input checked="" type="checkbox"/> Double Wall: <input type="checkbox"/>  | Manway?: Yes: <input checked="" type="checkbox"/> If yes Size: 7315.2 x 14630.4 mm No: <input type="checkbox"/>     |
| Interstitial space?: Gauge: <input type="checkbox"/> Site glass: <input type="checkbox"/>   | Fire Tube Present?: Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>                           |
| Is Tank Elevated?: Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>  | Capacity: 750.0 bbl   |
| Fully Visible?: Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>   |   |
| Tank Construction Material:   |   |
| Welded Steel: <input checked="" type="checkbox"/> Steel Bolted: <input type="checkbox"/> Galvanized Bolted: <input type="checkbox"/> Fibreglass: <input type="checkbox"/> Plastic: <input type="checkbox"/> |   |
| Bottom Material: Not Stated   | Bottom / Floor Thickness: 6.35 mm   |
| Shell Material: Not Stated  | Shell Thickness: 4.76 mm  |
| Deck Material: Not Stated   | Deck Thickness: 6.35 mm   |
| Corrosion Allowance: Not Stated   | Tank Dimensions: Height/Length: 7315.20 mm Diameter: 4724.4 ft  |
| Construction Code: Not Stated   | Roof Style: Flat: <input type="checkbox"/> Cone: <input checked="" type="checkbox"/> None: <input type="checkbox"/> |
| Internally Coated?: Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>   | Coating / Liner Type: Enviroliner 376   |
| If yes, coverage?: Full: <input type="checkbox"/> Partial: <input type="checkbox"/>   |   |
| Internal Cathodic Protection?: Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>  | External Cathodic Protection?: Yes: <input type="checkbox"/> No: <input type="checkbox"/>                           |
| If yes are there anodes?: Yes: <input checked="" type="checkbox"/> No: <input type="checkbox"/>   | If yes indicate type: Anodes: <input type="checkbox"/> Induced Current: <input type="checkbox"/>                    |
| Design Temp: Not Stated   | Design Pressure:  |
| X-Ray: Not Stated   |   |

| Pressure / Vacuum Relief - Burst Plate – Thief Hatch Nameplate Data |                  |               |              |  |                                 |             |
|---|------------------|---------------|--------------|--|---------------------------------|-------------|
| Device Tag #:   | Serial #:        | CRN #:        | Model #:     | Manufacturer:  | Size:                           | Code Stamp: |
| No PSV.   |                  |               |              |  |                                 |             |
| Set Pressure: (kPa)   | Capacity: (scfm) | Service Date: | Serviced By: | Isolation Block Valve:                                     | Isolation Block Valve Location: |             |
|   |                  |               |              | Yes: <input type="checkbox"/> No: <input type="checkbox"/> |                                 |             |

| Tank Contents Indicate All That Apply     |                               |                              |                                 |   |                                |                                     |                                 |                                   |  |  |
|---|-------------------------------|------------------------------|---------------------------------|---|--------------------------------|-------------------------------------|---------------------------------|-----------------------------------|--|--|
| Sweet <input checked="" type="checkbox"/> | Sour <input type="checkbox"/> | Oil <input type="checkbox"/> | Diesel <input type="checkbox"/> | Water <input checked="" type="checkbox"/> | Amine <input type="checkbox"/> | Condensate <input type="checkbox"/> | Glycol <input type="checkbox"/> | Methanol <input type="checkbox"/> |  |  |
| Other (Describe):                         |                               |                              |                                 |   |                                |                                     |                                 |                                   |  |  |

| External Inspection Items  | Good                                | Poor                     | N/A                                 | Comments   |
|--|-------------------------------------|--------------------------|-------------------------------------|------------|
| <b>Insulation:</b> Verify seals around manways, nozzles, no damage present, and there is no ingress of moisture.   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |            |
| <b>External Condition:</b> Assess paint condition, areas peeling, record any corrosion, damage, etc (record location, size and depth of corrosion or damage)   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |            |
| <b>Leakage:</b> Record any leakage at flanges, threaded joints, weep holes on repads, etc.   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | None noted |
| <b>Base:</b> Assess condition of paint, fire protection, concrete. Look for corrosion, buckling, dents, etc. Is tank mounted above ground water level – on pilings? Ground wire attached?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |            |
| <b>Anchor Bolts:</b> Hammer tap to ensure secure. Look for cracking in threads or signs of deformation. Is tank resting on deck – welded to supports?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |            |
| <b>Concrete Foundation:</b> There may be a concrete ring under the tank. Check for cracks, spalling, etc.  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |            |
| <b>Ladder / Platform:</b> Describe general condition, ensure supports are secure, describe any hazards.  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |            |
| <b>Nozzle:</b> Assess paint, look for leakage, and ensure stud threads are fully engaged. Record any damage, deflection, etc. Are nozzles gusseted?  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |            |
| <b>Gauges:</b> Ensure gauges are visible, working, no leakage, and suitable for range of MAWP/ Temp. Remember some tanks require fuel gas or other positive protection so a pressure gauge may be installed.                                       | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |            |
| <b>External Piping:</b> Ensure piping is well supported. All clamps, supports, shoes, etc. in place. Look for evidence of structural overload, deflection, etc. Paint condition, insulation condition, any wet insulation, any external corrosion? | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |            |
| <b>Valves:</b> Ensure no leaks are visible. Valves are properly supported and chained if necessary.  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |            |
| <b>Rupture Disk/Thief Hatch:</b> Some tanks have a positive pressure gas blanket. There may be a vacuum breaker – have a good look and check serviceability tag.   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | No Access  |
| <b>NDE Methods:</b><br>Was UT/ MPI done on tank and why  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |            |
| <b>Secondary Containment:</b> This may be a double walled tank with a vacuum gauge or level gauge indicator. Has the interstitial space been compromised? Could also be a concrete or steel dike with vinyl liner – describe.                      | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |            |

| Internal Inspection Items  | Good                                | Poor                                | N/A                                 | Comments   |
|--|-------------------------------------|-------------------------------------|-------------------------------------|--|
| <b>Coating:</b> Assess coating. Describe area coated, general condition of coating. Look at nozzles, coupling, and areas of most severe corrosion to ensure coating is intact. If coating is in poor condition make decision now if re-coating necessary? If so, when? | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | There were approximately 5 small chips in the coating right at the manway. These were not repaired. The rest of the coating is in very good condition. |
| <b>Anodes:</b> How many, type, condition, % consumed? Are they being replaced?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | There is 1 anode that is approximately 5% consumed.  |
| <b>Internal Piping:</b> Is there any? If so, carbon or stainless steel? Describe condition, dents, corrosion, erosion, etc. Ensure supports are secure and any bolts are suitable for future use.  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | The internal piping is stainless steel.  |
| <b>Float:</b> Intact and in place – guide cables attached? Is it functional?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |  |
| <b>Baffles, deflector plates, etc.:</b> If present, describe condition. Look closely at welds attached to tank wall.   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |  |
| <b>Bottom:</b> Note all corrosion, erosion or mechanical damage.   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |  |
| <b>Deck:</b> Note all corrosion, erosion or mechanical damage.   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | No access  |
| <b>Shell Sections:</b> Record number of shell sections. Record location, size and depth of all erosion, corrosion or mechanical damage. Describe general condition.  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | 4 shell sections. The upper two sections still have some sludge on them.   |
| <b>Fire Tube / Heat Medium Coil:</b> Is it in place? Anchored? Is it clean? Condition of Firetube?   | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |  |
| <b>Welds</b> Inspect all welds, including attachment welds. Document corrosion and pitting. Are all nozzles back welded?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |  |
| <b>Repairs Required:</b> If yes, ensure procedure laid out in API 653 is followed. If coating repairs were performed ensure to document the size and number of areas repaired. If contractor is involved in repairs then identify repair company.                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | The small chips at the manway were not repaired at the time of inspection.   |
| <b>NDE:</b> Was any NDE done: and results:   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | A UT survey was performed with all readings above nominal.   |
| <b>Subject to Leak Test (UST)</b> Y: <input type="checkbox"/> N: <input checked="" type="checkbox"/><br>Last Integrity Test Date - Type – Results?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |  |
| <b>Monthly Visual completed?</b> Y: <input checked="" type="checkbox"/> N: <input type="checkbox"/><br>View Operations Records & Comment   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | Not always completed.  |
| <b>Other:</b>  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |  |

Inspection Summary – Review And Acceptance

Observation Summary: There were 5 small chips in the coating at the manway that were not repaired at the time of inspection.


The tank is in good condition.

Should include amount of sludge; roof, floor, wall, firetube, coil condition (corrosion pitting depths); repairs done; any additions, (ie lowering suction line); you may want to make a sketch; are there any recommendations for next inspection. Remember, the next inspection may not be done for some time and the inspection may be done by someone else, so the more information the better.

Recommendations Summary: None

Action Items Required? NCR: [ ] Critical Repair: [ ] Deferred Repair: [ ]  
None

Is tank Suitable for Continued Service?: Yes [checked] No: [ ] Designated Inspection Interval: \_\_\_\_\_

Inspector Signature:  Company: Integrity Testing Services Date: Aug 12, 2014

Review & Acceptance by Enerplus Inspector: \_\_\_\_\_ Date: \_\_\_\_\_

Attachments to this Report: (NDT Reports, Photo's etc.) \_\_\_\_\_