



VESSEL INSPECTION SUMMARY

Report #: **123812-KK-07**  
 Inspect Date: 04/21/2010  
 Page: 1 of 7  
 IRISNDT #: 123812

Client: CNRL District: St. Albert Field: Cherhill  
 Facility: Cherhill Comp Unit / Skid #: N/A LSD: 15-08-057-05W5M  
 Jurisdiction #: A0419466 Equip Tag #: N/A Serial #: 97168C  
 CRN #: L-0405.2 Nat'l Bd #: N/A Year Built: 1998  
 Manufacturer: Kanbuilt Industries Inc Equipment Description: Flare Knock Out Drum  
 Status: In Service - Date Removed From Service: \_\_\_\_\_ Service: Sweet  
 MAWP Shell: 50 Psi @ 100 °F Height/Length: 8 Ft. Code Stamp:  Y  N  
 MAWP Tube: \_\_\_\_\_ @ \_\_\_\_\_ Size/Diameter.: 48 in. O.D. Insulated:  Y  N  
 MDMT: -20 °F RT: RT-2 Volume: \_\_\_\_\_ PWHT:  Y  N  
 Support Type: Saddle Manway:  Y  N  
 C.A.: 0.0625 in. Coated:  Y  N Clad:  Y  N J.E.: \_\_\_\_\_ Remote Access:  - \_\_\_\_\_

Component	Material	Nominal Thk	Diameter	OD/ID	Tube Side	Shell Side
East - Head	SA-516-70MT	0.375 in.	48.000 in.	OD	<input type="checkbox"/>	<input checked="" type="checkbox"/>
West - Head	SA-516-70MT	0.375 in.	48.000 in.	OD	<input type="checkbox"/>	<input checked="" type="checkbox"/>
- Shell	SA-516-70MT	0.250 in.	48.000 in.	OD	<input type="checkbox"/>	<input checked="" type="checkbox"/>
-					<input type="checkbox"/>	<input type="checkbox"/>
-					<input type="checkbox"/>	<input type="checkbox"/>

Comments:  
 Data plate securely attached and easy to read.

**PSV Static Data**

PSV -1 Tag #: N/A Serial #: N/A CRN: N/A  
 Model #: N/A Capacity: N/A Set Pressure: N/A  
 Manufacturer: N/A Service Company: N/A  
 Inlet Size & Type: - Last Service Date: N/A  
 Outlet Size & Type: - Block Valve: - -  
 Carseal Intact: \_\_\_\_\_ Code Stamp: \_\_\_\_\_  
 Shell Side / Tube Side: \_\_\_\_\_ Location of PSV: N/A

PSV -2 Tag #: \_\_\_\_\_ Serial #: \_\_\_\_\_ CRN: \_\_\_\_\_  
 Model #: \_\_\_\_\_ Capacity: \_\_\_\_\_ Set Pressure: \_\_\_\_\_  
 Manufacturer: \_\_\_\_\_ Service Company: \_\_\_\_\_  
 Inlet Size & Type: - Last Service Date: \_\_\_\_\_  
 Outlet Size & Type: - Block Valve: - -  
 Carseal Intact: \_\_\_\_\_ Code Stamp: \_\_\_\_\_  
 Shell Side / Tube Side: \_\_\_\_\_ Location of PSV: \_\_\_\_\_

**PSV Comments**

This vessel operates at atmospheric pressure (vented to flare), there is no PSV attached.

5311 - 86 Street, Edmonton, Alberta T6E 5T8 Phone: (780) 437-2022 Fax: (780) 438-1436

Calgary (403) 279-6121	Cold Lake (780) 594-1114	Corpus Christi, TX (361) 888-4700
Lloydminster (780) 875-6455	Fort McMurray (780) 743-1536	Deer Park, TX (281) 476-4444
Barhead (780) 674-3018	High Level (780) 956-4094	Matrix, Houston, TX (713) 722-7177
Nisku (780) 955-7616	Red Deer (403) 347-1742	Texas City, TX (490) 945-2262
	Medicine Hat (403) 527-6284	Tulsa, OK (918) 446-8773



Client:           CNRL                LSD:           15-08-057-05W5M                Jurisdiction #:           A0419466          

### External Inspection Results - VE

Item	Y	N	N/A	Condition	Comment	NCR	Action Item	Priority
Nameplate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept	Securely attached	<input type="checkbox"/>	<input type="checkbox"/>	
Foundation and Supports	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept	Good Condition	<input type="checkbox"/>	<input type="checkbox"/>	
Anchor Bolts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept	Good bolting	<input type="checkbox"/>	<input type="checkbox"/>	
Grounding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept	Good grounding	<input type="checkbox"/>	<input type="checkbox"/>	
Insulation Condition	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept	Partial Insulation	<input type="checkbox"/>	<input type="checkbox"/>	
PSV	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Vented to flare	<input type="checkbox"/>	<input type="checkbox"/>	
Shell & Heads	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept	Rough / flaking paint	<input type="checkbox"/>	<input type="checkbox"/>	
Metal Surfaces (Paint)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept	Isolated flaking / chipping paint	<input type="checkbox"/>	<input type="checkbox"/>	
Aux Equipment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept	Good condition	<input type="checkbox"/>	<input type="checkbox"/>	
Cathodic Protection	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Not Applicable	<input type="checkbox"/>	<input type="checkbox"/>	
Alignment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept	Good Alignment	<input type="checkbox"/>	<input type="checkbox"/>	
Flange Connections	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept	Good condition	<input type="checkbox"/>	<input type="checkbox"/>	
Pressure Gauge	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		No Press gauge attached	<input type="checkbox"/>	<input type="checkbox"/>	
Piping from Vessel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept	Good condition	<input type="checkbox"/>	<input type="checkbox"/>	
Temperature Gauge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept	Clean and clear	<input type="checkbox"/>	<input type="checkbox"/>	
Sight Glass	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept	Clear and clean, no leaks	<input type="checkbox"/>	<input type="checkbox"/>	
Leaks	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		No leaks noted	<input type="checkbox"/>	<input type="checkbox"/>	
Current UT Survey	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		Survey Performed	UT Company: Matrix Inspection		
Previous UT Survey	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		Unknown	UT Company: Unknown		

**LEGEND:**

Priority 0 - General Recommendations  
 Priority 1 - Goal date is 30 days from the activity date  
 Priority 2 - Goal date is 90 days from the activity date.  
 Priority 3 - Goal date is 1 Year from the activity date.  
 Priority 4 - Goal date is 5 Years from the activity date.

**External Visual Observations****Manual Review Required By Customer Representative -**

There is 1 Bolt with questionable thread engagement on inlet flange.

There is dust and dirt build-up on the top shell of the vessel.

The vessel to wall interface is in good condition with no evidence of leakage.

There are isolated rough surfaces, staining, thick/ rough paint, and chipping or flaking paint noted throughout.

The vessels piping and external attachments are in good visual condition with no evidence of leakage.

Minor surface corrosion was noted on the drain piping flanges. This corrosion can be easily removed with light wire brushing.

The vessel appears to be properly leveled and secured to the building floor.

The level gauges and sight glasses attached to this vessel are clear and appear to be in good working condition.

An Ultrasonic corrosion survey was performed at the time of inspection by Matrix Inspection using DMS2 serial number 01NOV4. All thickness values recorded were considered acceptable at the time of the inspection. See attached UltraMate UT file for complete thickness values.

5311 – 86 Street, Edmonton, Alberta T6E 5T8 Phone: (780) 437-2022 Fax: (780) 438-1436  
 Calgary (403) 279-6121  
 Lloydminster (780) 875-6455  
 Barhead (780) 674-3018  
 Nisku (780) 955-7616

Cold Lake (780) 594-1114  
 Fort McMurray (780) 743-1536  
 High Level (780) 956-4094  
 Red Deer (403) 347-1742  
 Medicine Hat (403) 527-6284

Corpus Christi, TX (361) 888-4700  
 Deer Park, TX (281) 476-4444  
 Matrix, Houston, TX (713) 722-7177  
 Texas City, TX (490) 945-2262  
 Tulsa, OK (918) 446-8773



Client:           CNRL                LSD:           15-08-057-05W5M                Jurisdiction #:           A0419466          

### Internal Inspection Results – VI

Item	Y	N	N/A	Condition	Comment	NCR	Action Item	Priority
Shell	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		No Internal inspection performed	<input type="checkbox"/>	<input type="checkbox"/>	
Heads	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		No Internal inspection performed	<input type="checkbox"/>	<input type="checkbox"/>	
Manway	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		No Internal inspection performed	<input type="checkbox"/>	<input type="checkbox"/>	
Gasket Surfaces	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		No Internal inspection performed	<input type="checkbox"/>	<input type="checkbox"/>	
Welds	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		No Internal inspection performed	<input type="checkbox"/>	<input type="checkbox"/>	
Refractory	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		No Internal inspection performed	<input type="checkbox"/>	<input type="checkbox"/>	
Heating Coils	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		No Internal inspection performed	<input type="checkbox"/>	<input type="checkbox"/>	
Demister Pad	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		No Internal inspection performed	<input type="checkbox"/>	<input type="checkbox"/>	
Vane Pack	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		No Internal inspection performed	<input type="checkbox"/>	<input type="checkbox"/>	
Baffles	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		No Internal inspection performed	<input type="checkbox"/>	<input type="checkbox"/>	
Trays	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		No Internal inspection performed	<input type="checkbox"/>	<input type="checkbox"/>	
Filter	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		No Internal inspection performed	<input type="checkbox"/>	<input type="checkbox"/>	
Internal Coating	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		No Internal inspection performed	<input type="checkbox"/>	<input type="checkbox"/>	
Tubesheet	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		No Internal inspection performed	<input type="checkbox"/>	<input type="checkbox"/>	
Tube Bundle	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>		No Internal inspection performed	<input type="checkbox"/>	<input type="checkbox"/>	

**LEGEND:**

Priority 0 - General Recommendations.

Priority 1 - Goal date is 30 days from the activity date.

Priority 2 - Goal date is 90 days from the activity date.

Priority 3 - Goal date is 1 Year from the activity date.

Priority 4 - Goal date is 5 Years from the activity date.

**Internal Visual Observations****Manual Review Required By Customer Representative -**

No Internal inspection performed at his time.

5311 – 86 Street, Edmonton, Alberta T6E 5T8 Phone: (780) 437-2022 Fax: (780) 438-1436

Calgary (403) 279-6121  
 Lloydminster (780) 875-6455  
 Barhead (780) 674-3018  
 Nisku (780) 955-7616

Cold Lake (780) 594-1114  
 Fort McMurray (780) 743-1536  
 High Level (780) 956-4094  
 Red Deer (403) 347-1742  
 Medicine Hat (403) 527-6284

Corpus Christi, TX (361) 888-4700  
 Deer Park, TX (281) 476-4444  
 Matrix, Houston, TX (713) 722-7177  
 Texas City, TX (490) 945-2262  
 Tulsa, OK (918) 446-8773



VESSEL INSPECTION  
SUMMARY

Report #: **123812-KK-07**  
 Inspect Date: 04/21/2010  
 Page: 4 of 7  
 IRISNDT #: 123812

Client: CNRL LSD: 15-08-057-05W5M Jurisdiction #: A0419466

Attached to Vessel Inspection Report # \_\_\_\_\_

Additional Attachments # of pages \_\_\_\_\_ Specify \_\_\_\_\_  
 NDE  UT  MT  PT  ET  RT  OTHER  \_\_\_\_\_

NDE Report #: \_\_\_\_\_

Items Raised: NCR  No Operational Action Item  No Repair Action Item  Yes Deferred Action Item  Yes

Action Items / Recommendations:

Ensure that inlet piping bolts are adjusted accordingly to make sure there is proper thread engagement.

Continue regular inspections to ensure vessel integrity and continued safe operation.

Actions Corrected at Time of Inspection: (If actions were corrected at the time of inspection – note the corrected actions here.)

None required.

Meets Code Criteria: - Yes

Re-Inspection Required - No

Recommended Inspection Intervals:

VE Inspect.	Last Inspection:	Apr - 2010	Interval (yrs)	05	Next Inspection: Apr - 2015
VI Inspect.	Last Inspection:	-	Interval (yrs)		Next Inspection: - 0000
UT Inspect.	Last Inspection:	Apr - 2010	Interval (yrs)	05	Next Inspection: Apr - 2015
PSV Service	Last Inspection:	-	Interval (yrs)		Next Inspection: - 0000

Unit # \_\_\_\_\_ Kilometers: \_\_\_\_\_

In 00:00 Out 00:00 Hrs \_\_\_\_\_

In 00:00 Out 00:00 Hrs \_\_\_\_\_

Personnel: \_\_\_\_\_

P.O.# / W.O.#/AFE #: 18203141-S646

Consumables:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Inspector:

Kris Katryniuk \_\_\_\_\_ PESL: \_\_\_\_\_  
 (Print)

\_\_\_\_\_  
 (Sign) API: 510-35238

Client Representative:

I am in full agreement with report contents: } (Print) \_\_\_\_\_  
 (Sign) \_\_\_\_\_

5311 – 86 Street, Edmonton, Alberta T6E 5T8 Phone: (780) 437-2022 Fax: (780) 438-1436

Calgary (403) 279-6121  
 Lloydminster (780) 875-6455  
 Barhead (780) 674-3018  
 Nisku (780) 955-7616

Cold Lake (780) 594-1114  
 Fort McMurray (780) 743-1536  
 High Level (780) 956-4094  
 Red Deer (403) 347-1742  
 Medicine Hat (403) 527-6284

Corpus Christi, TX (361) 888-4700  
 Deer Park, TX (281) 476-4444  
 Matrix, Houston, TX (713) 722-7177  
 Texas City, TX (490) 945-2262  
 Tulsa, OK (918) 446-8773

**Equipment Photographs:**

**01-A0419466 Data Plate**

**02-A0419466 A**



**03-A0419466 B**



**04-A0419466 Flange Face Flash Corrosion**

5311 – 86 Street, Edmonton, Alberta T6E 5T8 Phone: (780) 437-2022 Fax: (780) 438-1436

Calgary (403) 279-6121  
Lloydminster (780) 875-6455  
Barhead (780) 674-3018  
Nisku (780) 955-7616

Cold Lake (780) 594-1114  
Fort McMurray (780) 743-1536  
High Level (780) 956-4094  
Red Deer (403) 347-1742  
Medicine Hat (403) 527-6284

Corpus Christi, TX (361) 888-4700  
Deer Park, TX (281) 476-4444  
Matrix, Houston, TX (713) 722-7177  
Texas City, TX (490) 945-2262  
Tulsa, OK (918) 446-8773



**05-A0419466 Inlet Flange Bolting**

5311 – 86 Street, Edmonton, Alberta T6E 5T8 Phone: (780) 437-2022 Fax: (780) 438-1436

Calgary (403) 279-6121  
Lloydminster (780) 875-6455  
Barhead (780) 674-3018  
Nisku (780) 955-7616

Cold Lake (780) 594-1114  
Fort McMurray (780) 743-1536  
High Level (780) 956-4094  
Red Deer (403) 347-1742  
Medicine Hat (403) 527-6284

Corpus Christi, TX (361) 888-4700  
Deer Park, TX (281) 476-4444  
Matrix, Houston, TX (713) 722-7177  
Texas City, TX (490) 945-2262  
Tulsa, OK (918) 446-8773