

#### **VESSEL INSPECTION** SUMMARY

Report #: 123812-KK-09 Inspect Date: 04/21/2010 Page: 1 of 9 IRISNDT #: 123812

		l .							
Client: CNR	L Dis	strict:	St. A	Albert		Field:	С	herhill	
· · · · · · · · · · · · · · · · · · ·			#: N/A			LSD: 15-08-057-05\			
Jurisdiction #: A04194			04-16 Sep			Serial #:			
CRN #: L-0404		Bd #:		/A		Year Built:	,	1998	
Manufacturer: Kanbuilt Indust	Manufacturer: Kanbuilt Industries Inc Equipment Description: Separator								
Status: In Service - Date Removed From Service: Service: Sweet									
MAWP Shell: 720 Psi		Height/Le		10			de Stamp		
MAWP Tube:	@		neter.:	36	in. O.D.		Insulated		
MDMT:	RT: RT-2	Vo	lume:				PWHT	= =	
Support Type: Skirt					- 5		Manway	: 🗆 Y 🖾 N 📗	
C.A.: 0.0625 in.	Coated: Y N	I Clad: ∟			E.: Re				
Component	Material		Nominal	Thk	Diameter		Tube Side	Shell Side	
Top - Head	SA-516-70M	+	0.875		36.000 in.	OD			
Bottom - Head	SA-516-70M		0.875		36.000 in.	OD	<u> </u>		
- Shell	SA-516-70M	T	0.875	in.	36.000 in.	OD			
-							片	$\perp$	
Comments:									
Data plate is securely attached	l and easy to read.								
PSV Static Data									
PSV -1 Tag #: P12357	Sei	rial #: CE-	44119-3-A	10		CRN: OG	2389.5C		
Model #: 26FA12-1	20 Capa	acity: 470	1			essure: 720			
Manufacturer: Farris		_				mpany: Pov			
Inlet Size & Type: 1.50						e Date: 04-2	21-2010		
Outlet Size & Type: 2.00	in Flanged			В	Block Valve:				
Carseal Intact: Yes						Stamp: Yes	3		
Shell Side / Tube Side: S	Shell Side				Location	of PSV:			
PSV -2 Tag #:	Sei	rial #:				CRN:			
	Capa				Set Pr	essure:			
Manufacturer:					Service Co	mpany:			
Inlet Size & Type:	<u>-</u>				Last Servic	e Date:			
	-			В	Block Valve:				
Carseal Intact:						Stamp:			
Shell Side / Tube Side:					Location	of PSV:			
PSV Comments									
PSV is recently serviced, rated	and plumbed properly	y for this ve	essel.						
5311 – 86 Street, Edmonton, Alberta T6E	5T8 Phone: (780) 437-2022 Fax								
Calgary (403) 279-6121 Lloydminster (780) 875-6455		Cold Lake Fort McMurra		594-1114 743-1536		Corpus Ch Deer Park,	TX (2	61) 888-4700 81) 476-4444	
Barhead (780) 674-3018 Nisku (780) 955-7616		High Level Red Deer	(780)	956-4094 347-1742		Matrix, Hot Texas City	uston, TX (7	13) 722-7177 90) 945-2262	
(11),111,010		Medicine Hat		527-6284		Tulsa, OK		18) 446-8773	



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(403) 279-6121

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Calgary

Nisku

Lloydminster Barhead

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Client:	Client: CNRL LSD: 15-08-057-05W5M Jurisdiction #: A0419464					N0419464				
External Inspection Results - VE										
Item	Υ	N	N/A	Condition	Comment	NCR	Action Item	Priority		
Nameplate	$\boxtimes$			Accept	Loose attachment			1		
Foundation and Supports	$\boxtimes$			Accept	Good Condition					
Anchor Bolts	$\boxtimes$			Accept	Good bolting					
Grounding	$\boxtimes$			Accept	Good grounding					
Insulation Condition			$\boxtimes$		Good grounding   Not insulated					
PSV	$\boxtimes$			Accept	Serviced during TAR					
Shell & Heads	$\boxtimes$			Accept	Isolated Rough/flaking paint					
Metal Surfaces (Paint)	$\boxtimes$			Accept	Isolated flaking/ chipping paint					
Aux Equipment	$\boxtimes$			Accept	Good condition					
Cathodic Protection			$\boxtimes$		Not Applicable					
Alignment	$\boxtimes$			Accept	Good Alignment					
Flange Connections	$\boxtimes$			Accept	Good condition					
Pressure Gauge	$\boxtimes$			Accept	Clean and Clear					
Piping from Vessel	$\boxtimes$			Accept	Good condition					
Temperature Gauge	$\boxtimes$			Accept	Clean and clear					
Sight Glass	$\boxtimes$			Accept	clear and clean, no leaks					
Leaks	$\boxtimes$				No leaks noted					
Current UT Survey	$\boxtimes$				Survey Performed	UT Company: Matrix Inspection				
Previous UT Survey			$\boxtimes$		Unknown UT Company: Unknown					
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 2 - Goal date is 90 days from the activity date.										
External Visual Observations Manual Review Required By Customer Representative -										
The data plate is missing one rivet and plate is loose.  The inlet and outlet piping have surface corrosion @ the flange faces and on the piping.										
The bottom liquid level valve packing ring has surface corrosion.										
There is corrosion and flaking paint noted at the floor where the vessel base is bolted.  There are isolated rough surfaces, staining, thick/ rough paint, and chipping or flaking paint noted throughout.										
The vessel is painted and is in fair visual condition with chipping and flaking paint noted throughout.										
The vessel is grounded through the skid it is on, and wires are secure.										
The vessels piping and external attachments are in good visual condition with no evidence of leakage.										
The vessel is bolted securely to the building floor and appears to be properly leveled.										
The level gauges and sight glasses attached to this vessel are clear and appear to be in good working condition.										
The PSV attached to this vessel is plumbed correctly, recently serviced, and rated properly.										
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.										

Cold Lake

Fort McMurray High Level Red Deer

Medicine Hat

(780) 594-1114

(780) 594-1114 (780) 743-1536 (780) 956-4094 (403) 347-1742 (403) 527-6284 (361) 888-4700

(281) 476-4444 (713) 722-7177 (490) 945-2262

Corpus Christi, TX

Deer Park, TX Matrix, Houston, TX Texas City, TX Tulsa, OK



(780) 875-6455 (780) 674-3018 (780) 955-7616

Nisku

#### **VESSEL INSPECTION SUMMARY**

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			IRISND1#: 123812						
Client:	CNRL LS	SD: 15-08-057-05W5M	Jurisdiction #: A0419464						
Internal Inspection Results – VI									
Item	Y N N/A Condition	on Comment	NCR Action Item Priority						
Shell		No Internal inspection performed							
Heads		No Internal inspection performed							
Manway		No Internal inspection performed							
Gasket Surfaces		No Internal inspection performed							
Welds		No Internal inspection performed							
Refractory		No Internal inspection performed							
Heating Coils		No Internal inspection performed							
Demister Pad		No Internal inspection performed							
Vane Pack		No Internal inspection performed							
Baffles		No Internal inspection performed							
Trays		No Internal inspection performed							
Filter		No Internal inspection performed							
Internal Coating		No Internal inspection performed							
Tubesheet		No Internal inspection performed							
Tube Bundle		No Internal inspection performed							
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 2 - Goal date is 9	o days from the activity date	<del>,</del>							
Internal Visual Observation	S	Manual Review Require	ed By Customer Representative -						
No Internal inspection performed at his time.									
5311 – 86 Street, Edmonton, Albe Calgary (403) 279- Lloydminster (780) 875- Barhead (780) 674-	-6455	: (780) 438-1436 Cold Lake (780) 594-1114 Fort McMurray (780) 743-1536 High Level (780) 956-4094	Corpus Christi, TX (361) 888-4700 Deer Park, TX (281) 476-4444 Matrix, Houston, TX (713) 722-7177						

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Fort McMurray High Level Red Deer

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Deer Park, TX Matrix, Houston, TX Texas City, TX Tulsa, OK



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Client	: CNRL	LSD:	15-08-057	-05W5M Juri	sdiction #:	A0419464			
			Attach	ed to Vessel Inspection	on Report #				
Additional Attachn	nents # of page:	S	Specify						
	UT MT T	PT ET	RT O	THER					
NDE Report #:									
Items Raised:	NCR No	Operational Act	ion Item No	Repair Action Item _	Yes Deferred A	ction Item Yes			
Action Items / Re	commendations:								
Insert a rivet wh	ere there is one miss	sing to secure the	data plate firmly	n place.					
Clean and repaint this vessel in the areas where paint is flaking.									
Continue regula	Continue regular inspections to maintain vessel integrity and continued safe operation.								
G	•	J	•						
A ations Comments	d at Time of Improvedi								
	at time of inspection	on: (If actions were co	rrected at the time of I	nspection – note the correct	ted actions here.)				
None required									
Meets Code Criter	ia: - Yes		Re-I	nspection Required -	No				
Recommended	Inspection Intervals:		<u>,                                    </u>						
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:				
PSV Service	Last Inspection:	Apr - 2010	Interval (yrs)	05	Next Inspection:	•			
			Consumables:						
Unit #	Kilometers: Out 00:00		Consumables.	Inspector: Kris Katryniuk	PES	SL:			
In 00:00 In 00:00		Hrs		(Pri	•	PI: 510-35238			
Personnel:				(Sig	gn)				
				Client Representative					
P.O.# / W.O.#/AFE #:18203141-S646				agreement with report contents:	(Sign)				
5311 – 86 Street, Ed Calgary	dmonton, Alberta T6E 5T8 Pho (403) 279-6121	ne: (780) 437-2022 Fax: (		80) 594-1114	Corpus Christi, TX	(361) 888-4700			
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#### **Equipment Photographs:**



01-A0419464 Data Plate



02-A0419464 A

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Corpus Christi, TX (3 Deer Park, TX (2 Matrix, Houston, TX (7 Texas City, TX (4 Tulsa, OK (9

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03-A0419464 B



04-A0419464 Loose Data Plate



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05-A0419464 Vessel Surface Corrosion



06-A0419464 Base Corrosion



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#### 07-A0419464 Base Corrosion 2



08-A0419464 Inlet Flange Surface Corrosion



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#### 09-A0419464 Outlet Piping Surface Corrosion



10-A0419464 Liquid Level Valve Packing Corrosion