

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

Nisku

### **VESSEL INSPECTION** SUMMARY

Report #: 141168-SS-91 Inspect Date: 04/15/2010 Page: 1 of 5 IRISNDT #: 141168

Client: CNRL		Med. Hat - Wes		d: <u>Taber</u>
Facility: 09-17-011-1	16W4 Unit / Skid #:	N/A	LSI	D: 09-17-011-16W4
Jurisdiction #: A022787	73 Equip Tag #:		Serial :	#: LM-2191
CRN #: H0330	2 Nat'l Bd #:			t: 1987
Manufacturer: C.E. Natco Ltd.	Equip	ment Description:	Free Water Knockout Di	rum
Status: In Service -	Date Rem	noved From Service	e: Serv	rice: Sour
MAWP Shell: 75 Psi	@ 200 °F Height/L			Code Stamp: ⊠ Y □ N
MAWP Tube:	@ Size/Diar	meter:		Insulated: X Y N
MDMT: -20 °F		olume:		PWHT: ☐ Y ☒ N
Support Type: Saddle				Manway: ⊠ Y □ N
C.A.: 0.0625 in.	 Coated: ☐ Y ⊠ N Clad: ☐	∃Y⊠N J.E.	.: N/A (Not Remote Acc	
Component	Material	Nominal Thk	Diameter OD/ID	Tube Side Shell Side
- Shell	SA 516 70	0.500 in.		
North - Head	SA 516 70	0.708 in.		
South - Head	SA 516 70	0.564 in.		
-				
-				
Comments:				
Nameplate secure & legible				
PSV Static Data				
	- · · · · ·		ODN	
	Serial #:		CRN:	
	Capacity:		Set Pressure:	
Manufacturer:			Service Company:	
Inlet Size & Type:	<u>-</u>		Last Service Date:	
Outlet Size & Type:	<u>-</u>	Blo	ock Valve:	
Carseal Intact:			Code Stamp:	
Shell Side / Tube Side:			Location of PSV:	
PSV -2 Tag #:	Serial #:		CRN:	
Model #:	Capacity:		Set Pressure:	
Manufacturer:	Capacity.		Service Company:	
Inlot Cizo & Typo:			Last Service Date:	
Outlet Size & Type:	<del>-</del>	DI	ock Valve:	_
	<del>-</del>	DIC		
Carseal Intact:			Code Stamp:	
Shell Side / Tube Side:			Location of PSV:	
PSV Comments				
No safe access to PSV.				
Data plate insulated over.				
	T8 Phone: (780) 437-2022 Fax: (780) 438-143 Cold Lake		Camina	Christi, TX (361) 888-4700
Calgary (403) 279-6121 Lloydminster (780) 875-6455	Fort McMun		Deer P	ark, TX (281) 476-4444
Barhead (780) 674-3018	High Level	(780) 956-4094	Matrix,	Houston, TX (713) 722-7177

(780) 743-1536 (780) 956-4094 (403) 347-1742

(403) 527-6284

Fort McMurray High Level Red Deer

Medicine Hat

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

(918) 446-8773

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



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Report #: 141168-SS-91
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IRISNDT #: 141168

Client:	CNRL LSD: 09-17-011-16W4 Jurisdiction #: A0227				0227873						
External Inspection Results - VE											
Item			Condition	Comment	NCR	Action Item	Priority				
Nameplate	$\boxtimes$			Accept	Secure & legible						
Foundation and Supports	$\boxtimes$			Accept	Supported on saddles						
Anchor Bolts	$\boxtimes$			Accept							
Grounding	$\boxtimes$			Accept	On North side						
Insulation Condition	$\boxtimes$			Reject	Some damage	$\boxtimes$	3				
PSV		$\boxtimes$			No safe access						
Shell & Heads	$\boxtimes$			Accept	In good condition						
Metal Surfaces (Paint)	$\boxtimes$			Accept	In good condition						
Aux Equipment	$\boxtimes$			Accept							
Cathodic Protection			$\boxtimes$								
Alignment	$\boxtimes$			Accept							
Flange Connections				Accept							
Pressure Gauge	$\boxtimes$	Ē	П	Accept	40 psi						
Piping from Vessel		Ī	П	Accept	•						
Temperature Gauge	$\boxtimes$		Ē	Accept	14 C						
Sight Glass	$\boxtimes$			Accept	4 sight glasses						
Leaks		$\boxtimes$			No leaks noted						
Current UT Survey	$\boxtimes$					UT Company: Matrix					
Previous UT Survey UT Company:											
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	3				Manual Review Requ	ired By Cust	omer Represei	ntative -			
This Free Water Knockout Drum is partially insulated. Nameplate located on North saddle support is secure and legible. Shell and a section of the South head are painted with minor chips throughout. Negligible corrosion at exposed areas. North head is also un-insulated with 5% paint loss. Less than 0.005" corrosion at exposed areas. West side of shell is insulated with a 5" x 2" hole in cladding towards the bottom of the South head. All anchor bolts in place and secure. 4 sight glasses associated with this vessel. All in good condition, with no damage or defects. Threaded connections good. Pressure gauge shows no concerns. Reading 40 psi. Temperature gauge also no concerns. Reading 14 C. Vessel is grounded on the North side. Ground wire is securely attached with no damage visible. No misalignment visible. No leaks noted at time of inspection.  UT was carried out with GE DMS2 IRISNDT#31098. No low UT readings found.  Refer to the attached photos, UT data and drawing for details.											

 Calgary
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High Level (
Red Deer (
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(361) 888-4700 (281) 476-4444 (713) 722-7177 (490) 945-2262 (918) 446-8773



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### **VESSEL INSPECTION SUMMARY**

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Client:	CN	IRL		LS	D: 0	9-17-011-16W4	Jurisdiction	#:A	0227873
Internal Inspection Results – VI N/A (Not Applicable)									
Item	Υ	N	N/A	Condition	ı	Comment	NCR	Action Item	Priority
Shell									
Heads									
Manway									
Gasket Surfaces									
Welds									
Refractory									
Heating Coils									
Demister Pad									
Vane Pack		Щ					<u> </u>		
Baffles		Ц					Ц		
Trays	<u> </u>	Ц					Ц	Ц	
Filter		브					Ш		
Internal Coating		Ц					Ц	Ц	
Tubesheet	$\vdash$						⊢⊢	H	
Tube Bundle	Ш	Ш					Ш	Ш	
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.									
Internal Visual Observations						Manual Review Requir	ed By Custom	ner Represen	tative -
5311 – 86 Street, Edmonton, Alberta Calgary (403) 279-61 Lloydminster (780) 875-64 Barhead (780) 674-30	21 55	5T8 Pho	one: (780) 4	137-2022 Fax:	(780) 438-1436 Cold Lake Fort McMurray High Level	(780) 594-1114 (780) 743-1536 (780) 956-4094	Dee	rpus Christi, TX er Park, TX trix, Houston, TX	(361) 888-4700 (281) 476-4444 (713) 722-7177

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Page: 4 of 5
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Clien	t: CNRL	LSD:	09-17-01	11-16W4	Jurisdiction	on #: A0	227873		
			Attac	had to Vassa	I Inspection Per	oort #			
Additional Attachments # of pages Specify  Attached to Vessel Inspection Report #  Specify									
		PT  ET		THER					
NDE Report #:			👝 🧸	···· <u>-</u> ·· <u> </u>					
Items Raised:	NCR No	Operational Action	on Item No	Repair Act	ion Item No	Deferred Acti	on Item Yes		
Action Items / Recommendations:									
Repair damaged insulation:									
5" x 2" hole in o	ladding towards the	bottom of the South	h head.						
Continue to car	ry out visual interna	I, external and UT s	urvey at the reg	jular required	inspection frequency	uency.			
Actions Correcte	d at Time of Inspec	tion: (If actions were con	rooted at the time of	f Inapaction not	o the corrected activ	one here \			
Actions Correcte	d at Time of mapec	tion. (ii actions were con	rected at the time of	i inspection – not	e the corrected action	ons nere.)			
Meets Code Crite	ria: - Yes		Re-	-Inspection R	equired - No				
Dagaranandad	languation later rate								
	Inspection Intervals				1				
VE Inspect.	Last Inspection:	-	Interval (yrs)		Ne	xt Inspection:	- 0000		
VI Inspect.	Last Inspection:	-	Interval (yrs)		Ne	xt Inspection:	- 0000		
UT Inspect.	Last Inspection:	-	Interval (yrs)		Nex	xt Inspection:	- 0000		
PSV Service	Last Inspection:	-	Interval (yrs)		Ne	xt Inspection:	- 0000		
			Consumables:	Inspector					
Unit #			Consumables.		anie Simm	PESL:			
In 00:00	Out 00:00	Hrs			(Print)				
In 00:00 Personnel:	Out00:00	Hrs		_	(Sign)	API:	510 - 30892		
reisonnei.					presentative:				
P O # / W O #/AFI	= #·			I am in ful agreemen	t with }				
P.O.# / W.O.#/AFI		h (700) 407 0000 F. (7	00) 400 4400	report con	tents: J (Si	gn)			
Calgary	(403) 279-6121		Cold Lake	(780) 594-1114		Corpus Christi, TX	(361) 888-4700		
Lloydminster Barhead	(780) 875-6455 (780) 674-3018	1	High Level (	(780) 743-1536 (780) 956-4094		Deer Park, TX Matrix, Houston, TX	(281) 476-4444 (713) 722-7177		
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#### **Equipment Photographs:**





Figure 1\_Nameplate\_16April2010

Figure 2\_East Side\_16April2010



Figure 3\_West Side\_16 April2010

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