



MATRIX INSPECTION

VESSEL INSPECTION SUMMARY

Report #: **137865-WF-45**
 Inspect Date: 05/13/2009
 Page: 1 of 6
 IRISNDT #: 137865

Client: CNRL District: Slave Lake Field: Dawson
 Facility: 01-05-080-16w5 Unit / Skid #: N/A LSD: 01-05-080-16W5
 Jurisdiction #: A0497634 Equip Tag #: N/A Serial #: 030548
 CRN #: R4502.2 Nat'l Bd #: N/A Year Built: 2003
 Manufacturer: Enerflex Equipment Description: Inlet Separator
 Status: In - Shutdown Date Removed From Service: _____ Service: Sweet
 MAWP Shell: 740 Psi @ 100 °F Height/Length: _____ Code Stamp: Y N
 MAWP Tube: _____ @ _____ Size/Diameter.: 36 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
- Head	SA-516-70N	0.812 in.	36.000 in.	OD	<input type="checkbox"/>	<input checked="" type="checkbox"/>
- Shell	SA-516-70N	0.875 in.	36.000 in.	OD	<input type="checkbox"/>	<input checked="" type="checkbox"/>
-					<input type="checkbox"/>	<input type="checkbox"/>
-					<input type="checkbox"/>	<input type="checkbox"/>
-					<input type="checkbox"/>	<input type="checkbox"/>

Comments:

PSV Static Data

PSV -1 Tag #: _____ Serial #: 455797-3-KE CRN: OG8442.5C
 Model #: 26FA12-120 Capacity: 4835 SCFM Set Pressure: 740 psi
 Manufacturer: Farris Service Company: Farris
 Inlet Size & Type: 1.50 in. - Flanged Last Service Date: 11/03
 Outlet Size & Type: 2.00 in. - Flanged Block Valve: - -
 Carseal Intact: Yes Code Stamp: Yes
 Shell Side / Tube Side: Shell Side Location of PSV: _____

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

- The PSV is in good condition with the carseal intact. The PSV is overdue for servicing.
- Ensure the PSV is serviced at the June 09 TAR as per code requirements.
- Vessel will meet code requirements after PSV is serviced.

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: 01-05-080-16W5 Jurisdiction #: A0497634

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		<input type="checkbox"/>	<input type="checkbox"/>	
Foundation and Supports	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept		<input type="checkbox"/>	<input type="checkbox"/>	
Anchor Bolts	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept		<input type="checkbox"/>	<input type="checkbox"/>	
Grounding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept		<input type="checkbox"/>	<input type="checkbox"/>	
Insulation Condition	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
PSV	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reject	Overdue for servicing	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1
Shell & Heads	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept		<input type="checkbox"/>	<input type="checkbox"/>	
Metal Surfaces (Paint)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Reject	Isolated Deterioration	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4
Aux Equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
Cathodic Protection	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
Alignment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept		<input type="checkbox"/>	<input type="checkbox"/>	
Flange Connections	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept		<input type="checkbox"/>	<input type="checkbox"/>	
Pressure Gauge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept		<input type="checkbox"/>	<input type="checkbox"/>	
Piping from Vessel	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept	Mild active corrosion	<input type="checkbox"/>	<input checked="" type="checkbox"/>	4
Temperature Gauge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept		<input type="checkbox"/>	<input type="checkbox"/>	
Sight Glass	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Accept		<input type="checkbox"/>	<input type="checkbox"/>	
Leaks	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
Current UT Survey	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		No significant wall losses	UT Company: Matrix		
Previous UT Survey	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			UT Company:		

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 -

An external visual inspection was performed on vessel and the findings are as follows:

- The vessel was not operating at time of inspection as this vessel only operates in winter. No process leaks or vibrations were noted.
- The PSV is in good condition with the carseal intact. The PSV is overdue for servicing.
- Mild active corrosion is present on the bottom shell outlet nozzle to blowcase. No significant wall losses have occurred at this time.
- The paint is deteriorating on isolated areas of the shell and piping with light corrosion around the flanges.
- The insulation cladding is damaged and sections of insulation are missing from the drain piping.
- The saddle supports are secure and level.
- The sight glass, pressure and temperature gauges are clear and visible.
- External UT was performed with no significant wall losses noted.
- Refer to the attached photos, UT data and drawing for inspection findings.

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: 01-05-080-16W5 Jurisdiction #: A0497634

Internal Inspection Results – VI

Item	Y	N	N/A	Condition	Comment	NCR	Action Item	Priority
Shell	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
Heads	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
Manway	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
Gasket Surfaces	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
Welds	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
Refractory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
Heating Coils	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
Demister Pad	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
Vane Pack	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
Baffles	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
Trays	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
Filter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
Internal Coating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
Tubesheet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>	
Tube Bundle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>			<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 -

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:

Figure 1_Nameplate_13May09

Figure 2_Inlet Separator_13May09

Figure 3_Paint Deteriorating_13May09

Figure 4_Mild Active Corrosion_13May09



Equipment Photographs:



Figure 5_Insulation Damage to Drain Piping_13May09

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