



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area  
**System 31 - Crude Separator System**  
 Machine Id  
**N-3104B TRANSFORMER, COALESCER STEP UP 600V 3 PH**  
 Component  
**Transformer Oil**  
 Fluid  
**IRVING TRANSFORMER OIL (--- LTR)**

**RECOMMENDATION**

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PP	PP	PP
Sample Date		Client Info		04 Apr 2024	16 Apr 2023	28 Jul 2022
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

**WEAR**

Iron	ppm	ASTM D5185(m)	>125	0	0	0
Chromium	ppm	ASTM D5185(m)		0	0	0
Nickel	ppm	ASTM D5185(m)		0	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>2	0	0	0
Aluminum	ppm	ASTM D5185(m)	>5	0	0	0
Lead	ppm	ASTM D5185(m)	>30	0	2	<1
Copper	ppm	ASTM D5185(m)	>10	<1	0	0
Tin	ppm	ASTM D5185(m)	>2	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

**CONTAMINATION**

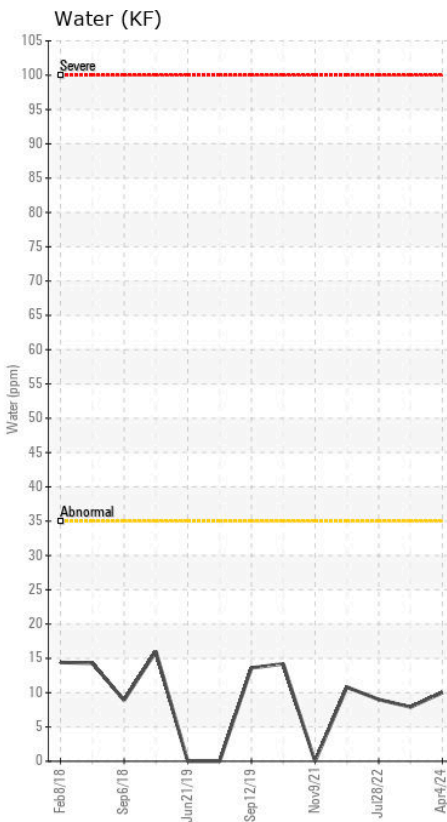
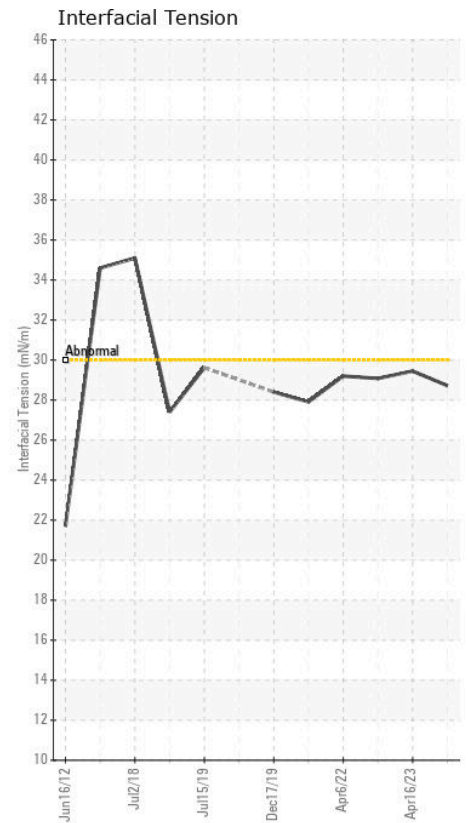
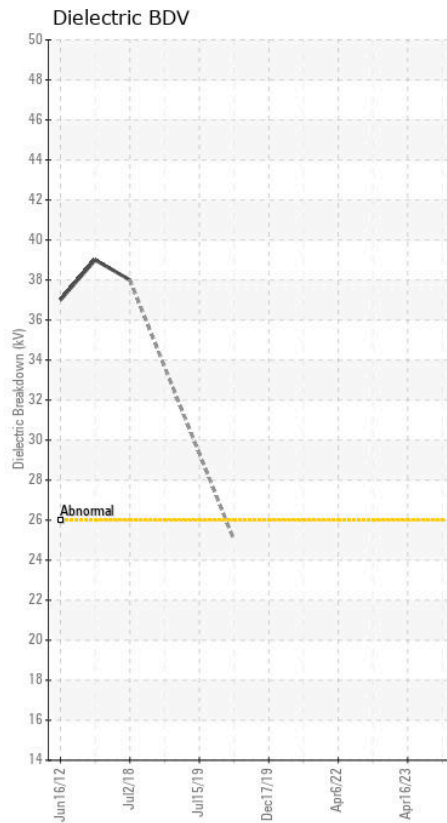
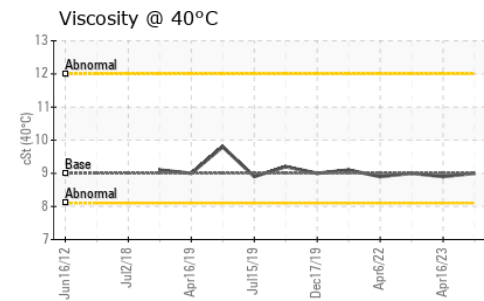
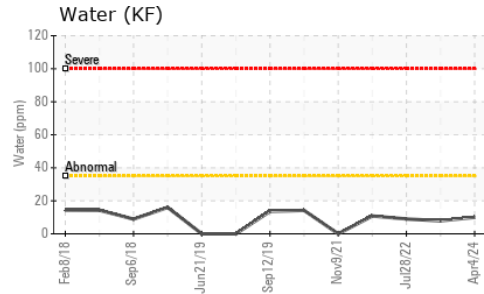
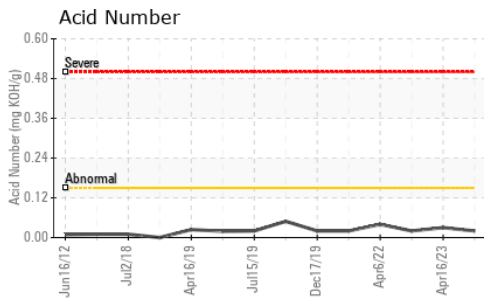
Insufficient sample was received to conduct all the routine laboratory tests. The water content is negligible. There is no indication of any contamination in the transformer oil.

Silicon	ppm	ASTM D5185(m)	>25	0	0	0
Potassium	ppm	ASTM D5185(m)	>20	<1	0	<1
Water	%	ASTM D6304*	>0.0035	0.001	0.001	0.001
ppm Water	ppm	ASTM D6304*	>35	10	7.9	9.0
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	VLITE	NONE
Sand/Dirt	scalar	Visual*	NONE	VLITE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.0035	NEG	NEG	NEG

**FLUID CONDITION**

The AN level is acceptable for this fluid. The condition of the transformer oil is suitable for further service.

Sodium	ppm	ASTM D5185(m)		<1	0	0
Boron	ppm	ASTM D5185(m)		0	0	0
Barium	ppm	ASTM D5185(m)		0	0	0
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		0	0	0
Magnesium	ppm	ASTM D5185(m)		0	0	0
Calcium	ppm	ASTM D5185(m)		0	0	0
Phosphorus	ppm	ASTM D5185(m)		0	0	<1
Zinc	ppm	ASTM D5185(m)		<1	<1	<1
Sulfur	ppm	ASTM D5185(m)		879	896	896
Acid Number (AN)	mg KOH/g	ASTM D974*		0.02	0.03	0.02
Specific Gravity		ASTM D1298 *	0.865	0.873	0.874	0.874
Visc @ 40°C	cSt	ASTM D7279(m)	9	9	8.9	9
Interfacial Tension	mN/m	ASTM D971(e)*		28.72	29.45	29.08
ASTM Color	scalar	ASTM D1500*		<1.5	1.0	<1.5



ISO 17025:2017  
Accredited  
Laboratory

**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : PP  
**Lab Number** : 02626988  
**Unique Number** : 5760120  
**Test Package** : TRF 1 ( Additional Tests: ICP, KV40, Spat )

**Received** : 05 Apr 2024  
**Tested** : 09 Apr 2024  
**Diagnosed** : 22 Apr 2024 - Bill Quesnel

**HIBERNIA MGMT & DEVELOPMENT CO. LTD**  
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 ST.JOHNS, NL  
 CA A1C 6K3  
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To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.

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