



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Area
GARAGE
Machine Id
4100-VMC-010 (S/N 2701U21218)
Component
Hydraulic System
Fluid
ESSO HYDRAUL EXTRA (135 LTR)

RECOMMENDATION

Nous vous recommandons d'échantillonner de nouveau dès que possible afin de contrôler la situation.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0908374	WC0728008	WC0732801
Sample Date		Client Info		29 Feb 2024	13 Nov 2023	15 Jun 2023
Machine Age	hrs	Client Info		20000	17855	16020
Oil Age	hrs	Client Info		20000	17855	16020
Filter Age	hrs	Client Info		20000	17855	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

Le taux de fer est anormal. Le bas indice ferreux (PQ) indique que l'usure ferreuse est due à de la corrosion.

PQ	UOM	Method	Limit/Abn	Current	History1	History2
Iron	ppm	ASTM D5185(m)	>20	▲ 31	▲ 34	13
Chromium	ppm	ASTM D5185(m)	>20	6	5	3
Nickel	ppm	ASTM D5185(m)	>20	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	0
Aluminum	ppm	ASTM D5185(m)	>20	2	2	1
Lead	ppm	ASTM D5185(m)	>20	0	<1	<1
Copper	ppm	ASTM D5185(m)	>20	6	6	4
Tin	ppm	ASTM D5185(m)	>20	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

La propreté du système est acceptable pour votre objectif de propreté ISO 4406. La teneur en eau est négligeable. La propreté du système et du fluide est acceptable.

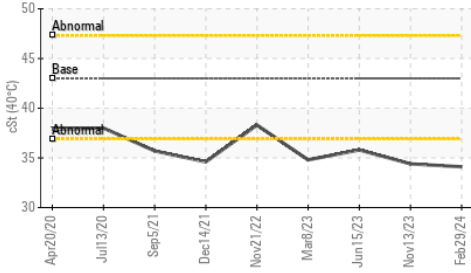
Silicon	ppm	ASTM D5185(m)	>15	2	3	2
Potassium	ppm	ASTM D5185(m)	>20	1	<1	<1
Water	%	ASTM D6304*	>0.2	0.035	0.050	0.063
ppm Water	ppm	ASTM D6304*	>2000	359	503	639.7
Particles >4µm		ASTM D7647	>5000	1995	▲ 23995	620
Particles >6µm		ASTM D7647	>1300	468	▲ 5484	231
Particles >14µm		ASTM D7647	>160	42	151	39
Particles >21µm		ASTM D7647	>40	10	30	14
Particles >38µm		ASTM D7647	>10	1	2	3
Particles >71µm		ASTM D7647	>3	0	0	2
Oil Cleanliness		ISO 4406 (c)	>19/17/14	18/16/13	▲ 22/20/14	16/15/12
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	VLITE	NONE	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*	>0.2	NEG	NEG	NEG

FLUID CONDITION

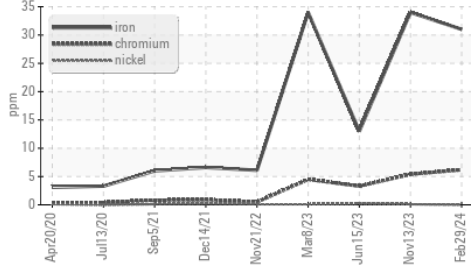
La viscosité de l'huile est inférieure à la viscosité type, ce qui pourrait indiquer l'ajout d'un grade d'huile plus léger. Le AN est acceptable pour ce fluide.

Sodium	ppm	ASTM D5185(m)		6	6	3
Boron	ppm	ASTM D5185(m)		4	5	5
Barium	ppm	ASTM D5185(m)		<1	<1	0
Molybdenum	ppm	ASTM D5185(m)		<1	1	2
Manganese	ppm	ASTM D5185(m)		0	0	<1
Magnesium	ppm	ASTM D5185(m)		15	15	15
Calcium	ppm	ASTM D5185(m)		3533	3489	3516
Phosphorus	ppm	ASTM D5185(m)		1041	1088	1158
Zinc	ppm	ASTM D5185(m)		1248	1236	1239
Sulfur	ppm	ASTM D5185(m)		3322	3303	3366
Acid Number (AN)	mg KOH/g	ASTM D974*		1.86	1.79	1.58
Visc @ 40°C	cSt	ASTM D7279(m)	43	▲ 34.1	▲ 34.4	35.8

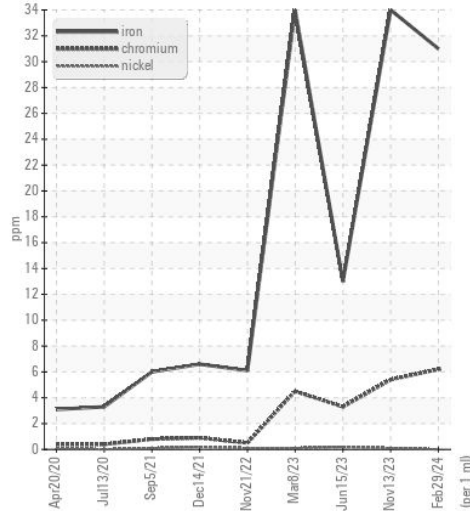
▲ Viscosity @ 40°C



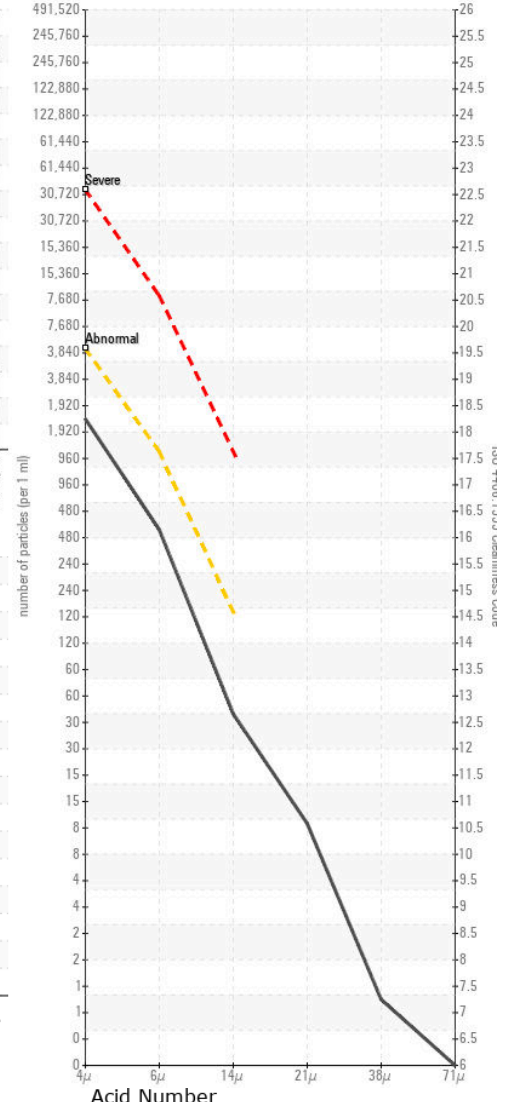
▲ Ferrous Alloys



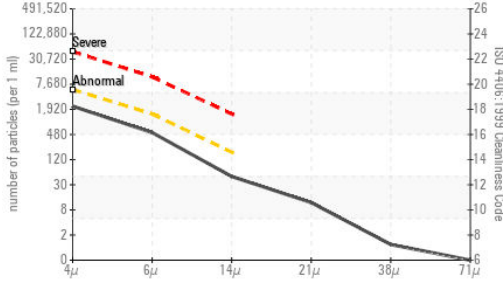
▲ Ferrous Alloys



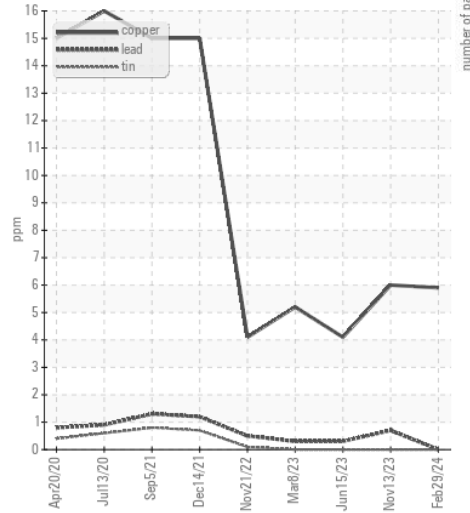
Particle Count



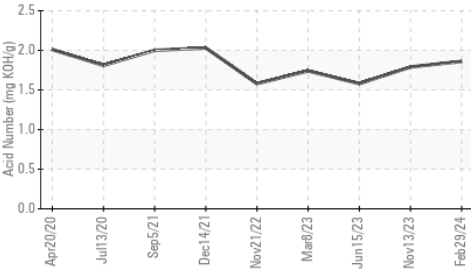
Particle Count



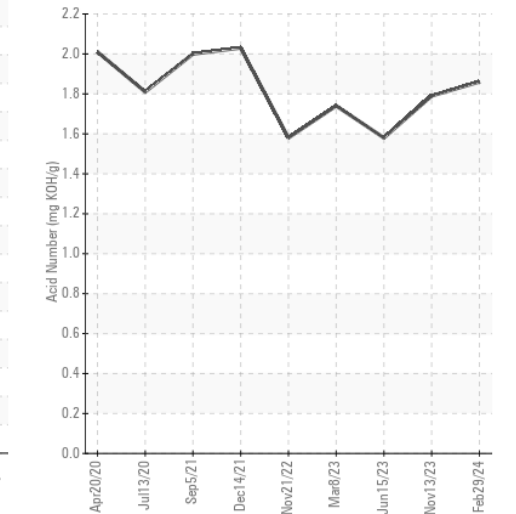
Non-ferrous Metals



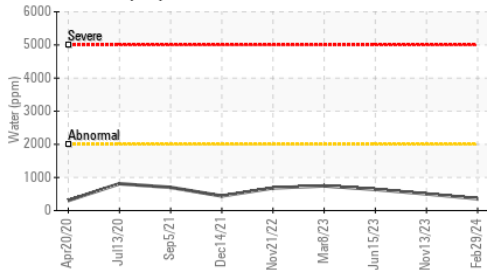
Acid Number



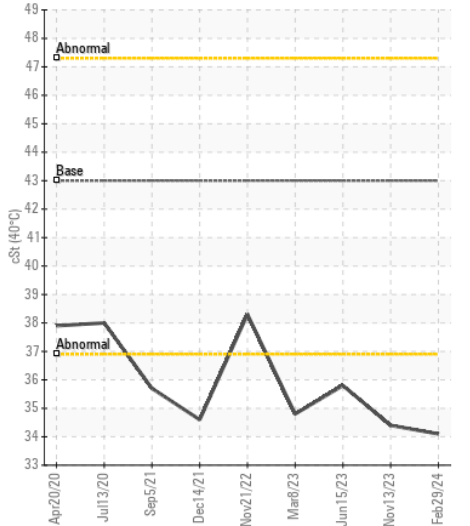
Acid Number



Water (KF)



▲ Viscosity @ 40°C



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : WC0908374
Lab Number : 02627332
Unique Number : 5760464
Test Package : IND 2 (Additional Tests: KF, PQ)

Received : 08 Apr 2024
Tested : 10 Apr 2024
Diagnosed : 10 Apr 2024 - Kevin Marson

RTA - ALMA
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 ALMA, QC
 CA G8B 6T3
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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.