



OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Area
Caster/Hydraulics
 Machine Id
D - Strand 2-1 Hydraulic Tank
 Component
Hydraulic System
 Fluid
FORSYTHE NO FIRE WG 200R (5000 LTR)

RECOMMENDATION

Due to this condition we recommend the following action... We advise an early resample to confirm this situation. We recommend an early resample to monitor this condition. NOTE: The current sample results do not match this units historical trend, indicating the sample may not be from this component/unit.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0898700	WC0890395	WC0871200
Sample Date		Client Info		10 Jan 2024	15 Dec 2023	16 Oct 2023
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				SEVERE	SEVERE	ABNORMAL

WEAR

Iron ppm levels are severe. Moderate concentration of visible metal present. Cylinder wear is indicated. Cylinder or oil pump wear indicated.

PQ		ASTM D8184*	>99999	16	0	0
Iron	ppm	ASTM D5185(m)	>20	183	0	0
Chromium	ppm	ASTM D5185(m)	>20	7	0	0
Nickel	ppm	ASTM D5185(m)	>20	2	0	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	<1	<1
Aluminum	ppm	ASTM D5185(m)	>20	<1	0	0
Lead	ppm	ASTM D5185(m)	>20	3	0	0
Copper	ppm	ASTM D5185(m)	>20	<1	0	0
Tin	ppm	ASTM D5185(m)	>20	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	VLITE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

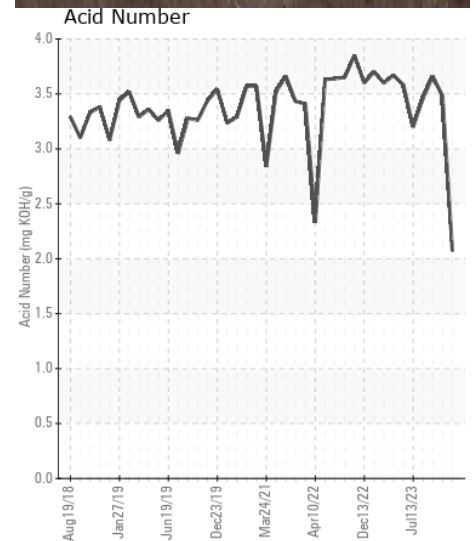
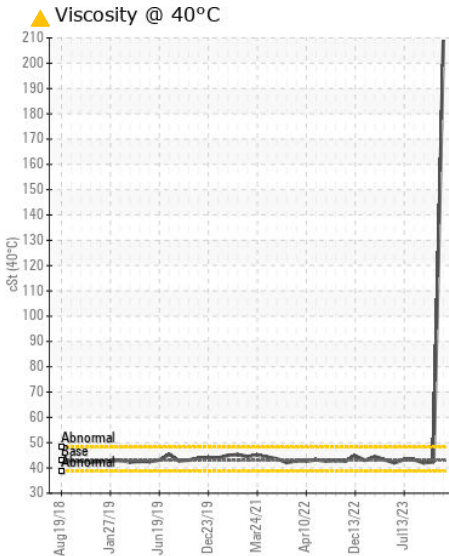
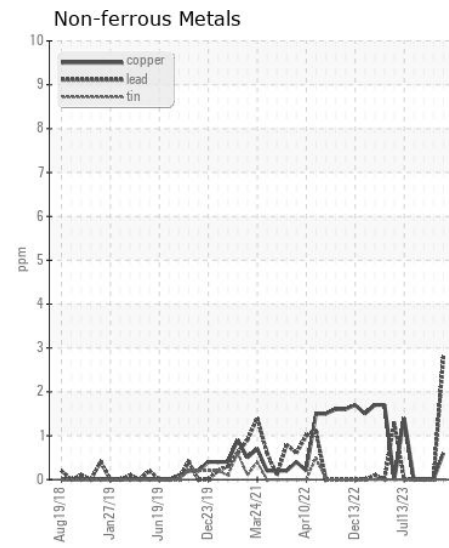
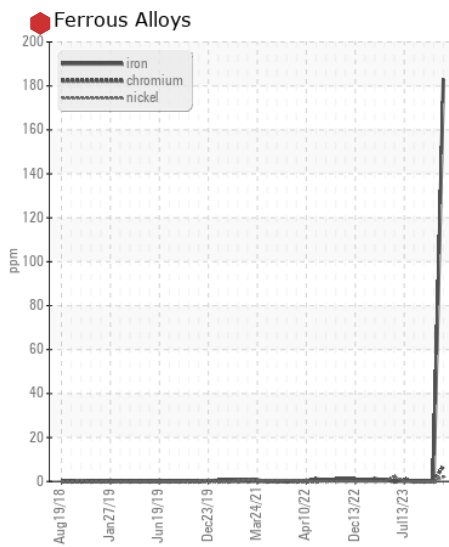
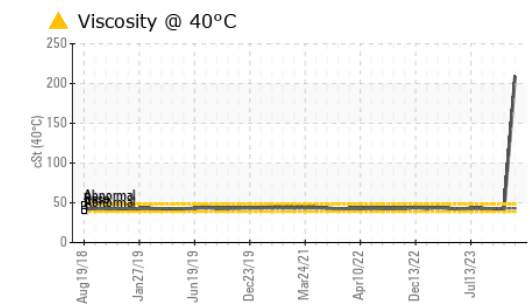
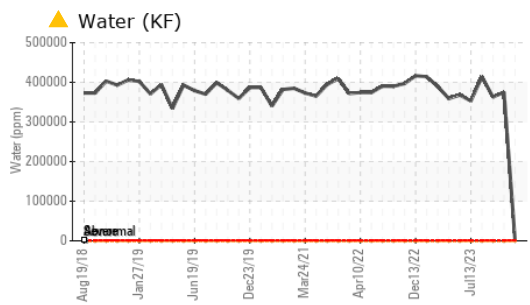
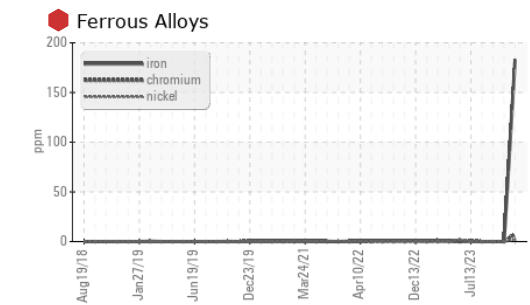
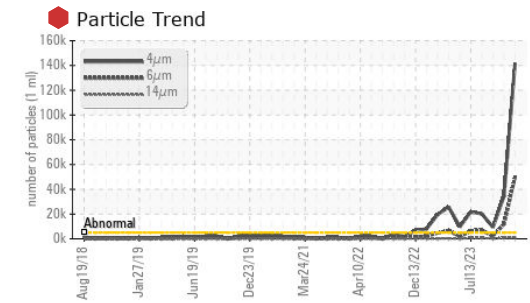
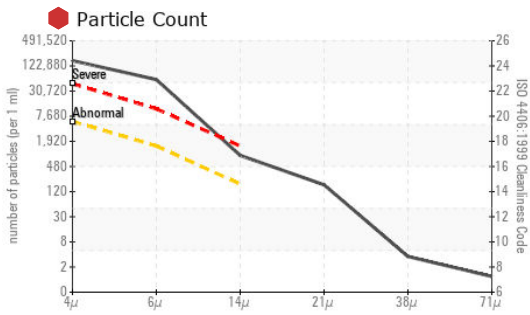
There is a high amount of particulates (2 to 100 microns in size) present in the oil.

Silicon	ppm	ASTM D5185(m)	>15	2	<1	<1
Potassium	ppm	ASTM D5185(m)	>20	3	11	15
Water	%	ASTM D6304*		0.012	37.5	36.3
ppm Water	ppm	ASTM D6304*	>10%	127	375000	363000
Particles >4µm		ASTM D7647	>5000	141594	34571	9302
Particles >6µm		ASTM D7647	>1300	50062	11804	2163
Particles >14µm		ASTM D7647	>160	775	715	193
Particles >21µm		ASTM D7647	>40	154	103	85
Particles >38µm		ASTM D7647	>10	3	0	15
Particles >71µm		ASTM D7647	>3	1	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	24/23/17	22/21/17	20/18/15
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	FRGLY	FRGLY
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*		NEG	>10%	>10%

FLUID CONDITION

The water concentration level is lower than acceptable for this fluid. Viscosity of sample indicates oil is within ISO 220 range, advise investigate. This plus the additive levels indicates that this is not the same brand, or type of oil as reported. The AN level is acceptable for this fluid.

Sodium	ppm	ASTM D5185(m)		2	188	168
Boron	ppm	ASTM D5185(m)		3	<1	<1
Barium	ppm	ASTM D5185(m)		0	<1	<1
Molybdenum	ppm	ASTM D5185(m)		0	0	0
Manganese	ppm	ASTM D5185(m)		1	0	0
Magnesium	ppm	ASTM D5185(m)		4	<1	0
Calcium	ppm	ASTM D5185(m)		3	1	<1
Phosphorus	ppm	ASTM D5185(m)		583	1	<1
Zinc	ppm	ASTM D5185(m)		49	0	0
Sulfur	ppm	ASTM D5185(m)		8346	62	56
Acid Number (AN)	mg KOH/g	ASTM D974*		2.07	3.48	3.66
pH	Scale 0-14	ASTM D1287*		---	9.73	9.40
Visc @ 40°C	cSt	ASTM D7279(m)	43	209	42.4	42.0
Alkaline Reserve (Oils)	ml KOH/g	ASTM D1121*	210	---	203	204



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 **STELCO - BOSC - Basic Oxygen Slab Caster**
Sample No. : WC0898700 **Received** : 10 Jan 2024 2330 Regional Road #3, Door: BOSC8
Lab Number : 02608030 **Diagnosed** : 15 Jan 2024 NANTICOKE, ON
Unique Number : 5709116 **Diagnostician** : Kevin Marson CA N0A 1L0
Test Package : IND 2 (Additional Tests: Bottom, BottomAnalysis, FilterPatch, KF, pH, PQ, PrtFilter, ReserveAlk) **Contact:** Tom Walden
Thomas.Walden@stelco.com

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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