



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
120920 - ERIE MATERIALS

Component
Hydraulic System

Fluid
AW HYDRAULIC OIL ISO 32 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0682326	WC0612952	WCM2284803
Sample Date		Client Info		28 Feb 2023	01 Dec 2021	22 Feb 2017
Machine Age	yrs	Client Info		9	0	1323
Oil Age	yrs	Client Info		9	0	0
Filter Age	yrs	Client Info		1	1	0
Oil Changed		Client Info		Not Changed	Not Changed	N/A
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ATTENTION	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	4	4	1
Chromium	ppm	ASTM D5185m	>10	0	0	0
Nickel	ppm	ASTM D5185m	>10	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>10	<1	0	0
Lead	ppm	ASTM D5185m	>10	0	0	<1
Copper	ppm	ASTM D5185m	>75	2	1	2
Tin	ppm	ASTM D5185m	>10	0	<1	1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

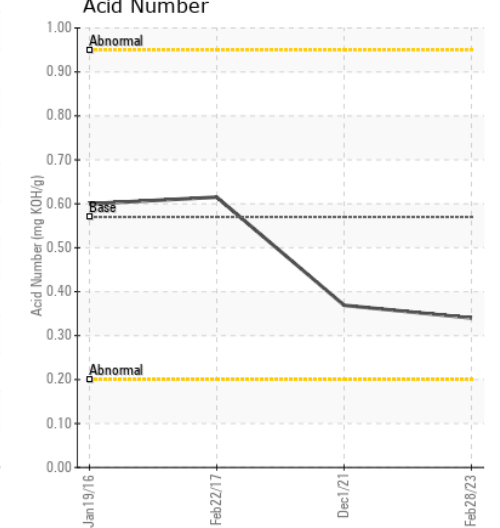
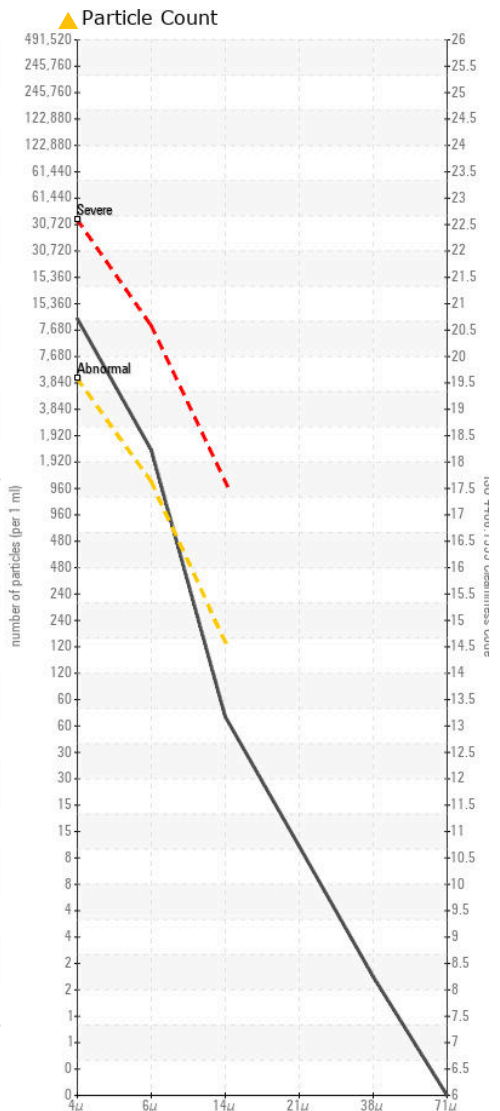
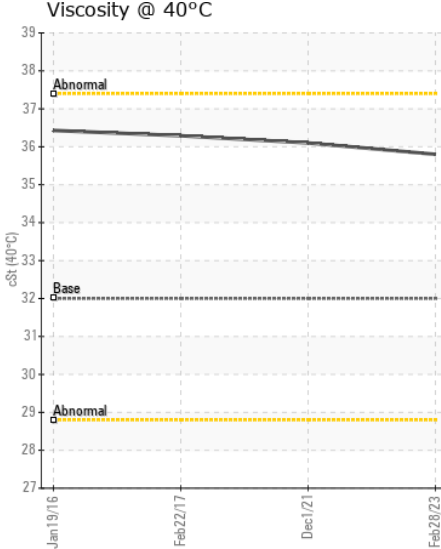
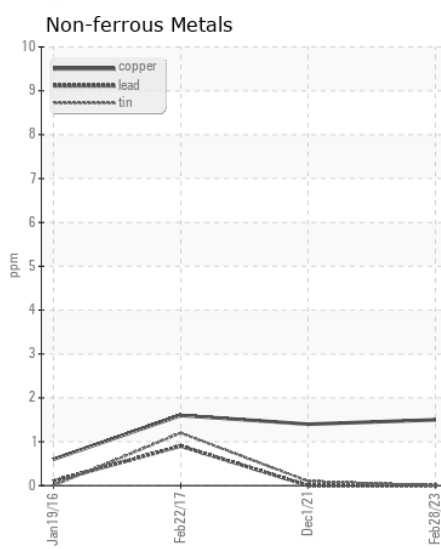
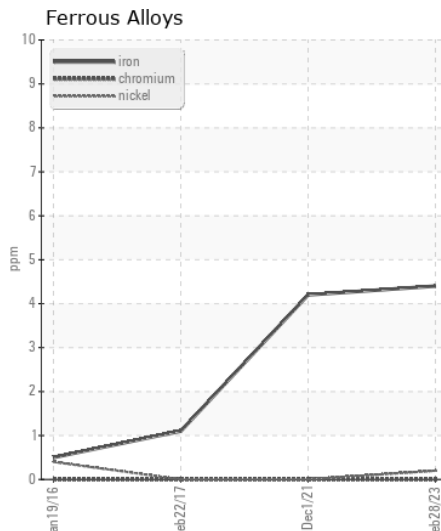
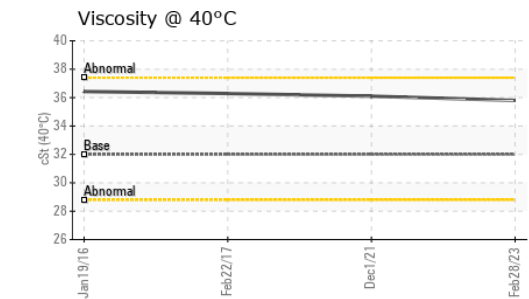
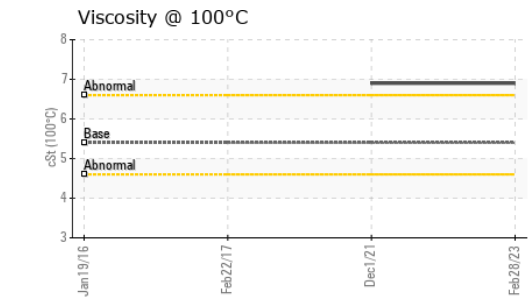
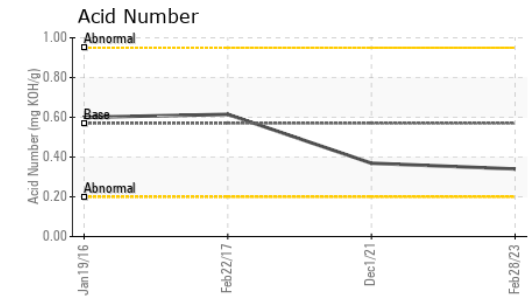
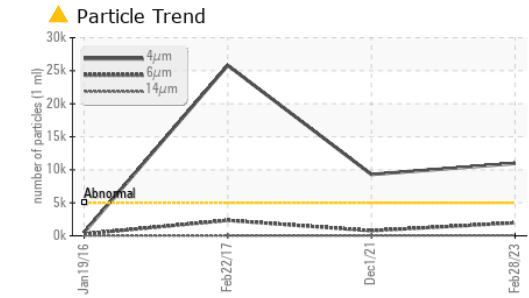
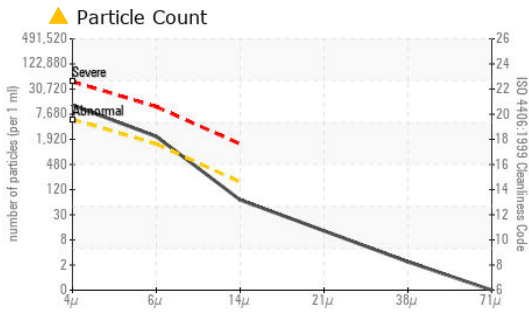
There is a high amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185m	>20	<1	<1	2
Potassium	ppm	ASTM D5185m	>20	<1	0	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	▲ 10961	▲ 9292	▲ 25818
Particles >6µm		ASTM D7647	>1300	▲ 1966	767	▲ 2345
Particles >14µm		ASTM D7647	>160	60	38	33
Particles >21µm		ASTM D7647	>40	11	10	20
Particles >38µm		ASTM D7647	>10	2	0	2
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 21/18/13	▲ 20/17/12	▲ 22/18/12
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	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	NEG

FLUID CONDITION

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

Sodium	ppm	ASTM D5185m		1	<1	<1
Boron	ppm	ASTM D5185m	5	0	2	<1
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	5	<1	<1	0
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	25	<1	0	0
Calcium	ppm	ASTM D5185m	200	53	49	46
Phosphorus	ppm	ASTM D5185m	300	380	374	369
Zinc	ppm	ASTM D5185m	370	494	443	449
Sulfur	ppm	ASTM D5185m	2500	4660	3107	1167
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.34	0.369	0.615
Visc @ 40°C	cSt	ASTM D445	32	35.8	36.1	36.29
Visc @ 100°C	cSt	ASTM D445	5.4	6.9	6.9	---
Viscosity Index (VI)	Scale	ASTM D2270	102	156	154	---



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0682326 **Received** : 27 Mar 2023
Lab Number : 05803305 **Diagnosed** : 29 Mar 2023
Unique Number : 10400834 **Diagnostician** : Doug Bogart
Test Package : MOB 2 (Additional Tests: KV100, VI)

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To discuss this sample report, contact Customer Service at 1-800-237-1369.
 * - Denotes test methods that are outside of the ISO 17025 scope of accreditation.
 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)