



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
CAIRO (S/N 2079)

Component
Port Reduction Gear

Fluid
SCHAEFFER 209 MOLY UNIVERSAL GEARLUBE ISO 220 (160 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0062437	MW0062375	MW0047413
Sample Date		Client Info		27 Dec 2023	20 Nov 2023	30 Oct 2023
Machine Age	hrs	Client Info		48792	47931	47492
Oil Age	hrs	Client Info		48792	47931	47492
Filter Age	hrs	Client Info		48792	47931	0
Oil Changed		Client Info		Not Changed	Not Changed	Not Changed
Filter Changed		Client Info		Not Changed	Not Changed	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	40	40	39
Chromium	ppm	ASTM D5185m	>10	0	<1	<1
Nickel	ppm	ASTM D5185m	>10	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m		0	0	<1
Aluminum	ppm	ASTM D5185m	>25	2	2	2
Lead	ppm	ASTM D5185m	>100	0	1	<1
Copper	ppm	ASTM D5185m	>50	4	5	5
Tin	ppm	ASTM D5185m	>10	0	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

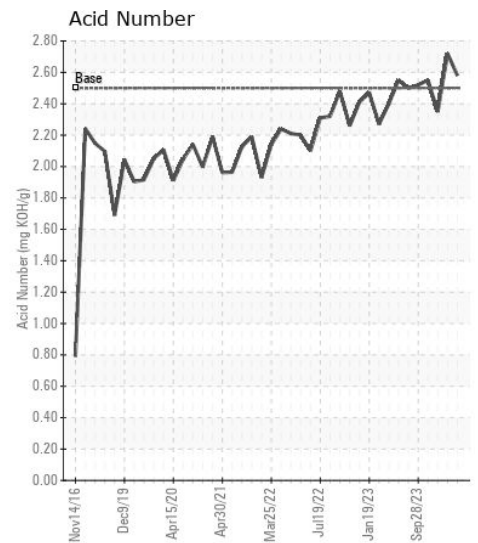
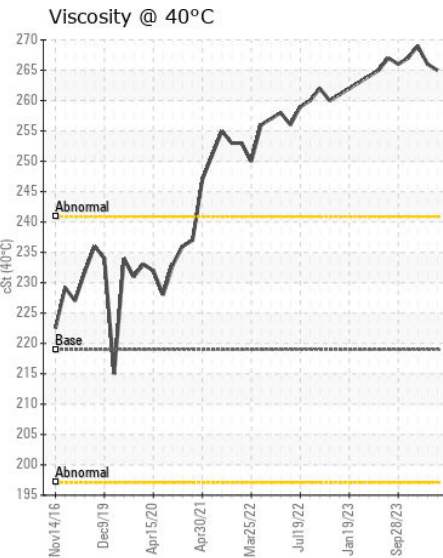
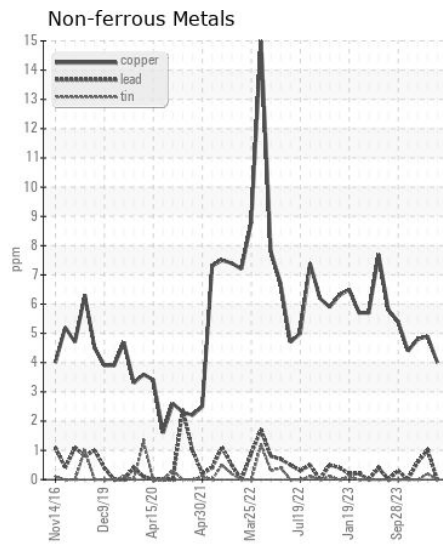
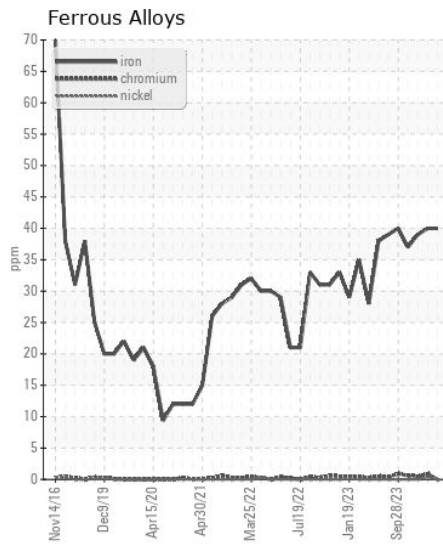
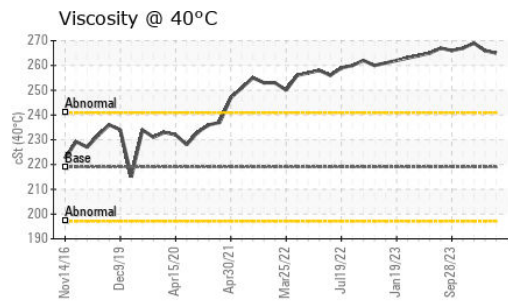
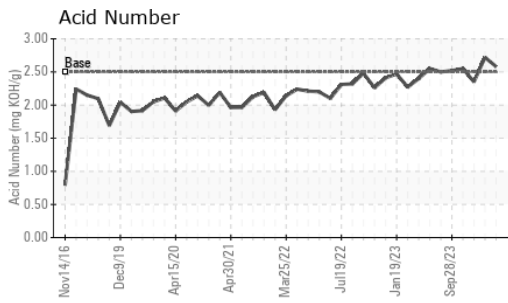
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>50	4	6	6
Potassium	ppm	ASTM D5185m	>20	2	4	3
Water		WC Method	>0.1	NEG	NEG	NEG
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		12	8	5
Boron	ppm	ASTM D5185m	65	6	8	8
Barium	ppm	ASTM D5185m		0	4	7
Molybdenum	ppm	ASTM D5185m	325	119	131	137
Manganese	ppm	ASTM D5185m		0	<1	<1
Magnesium	ppm	ASTM D5185m		0	4	4
Calcium	ppm	ASTM D5185m		75	78	76
Phosphorus	ppm	ASTM D5185m	875	991	933	919
Zinc	ppm	ASTM D5185m		53	55	54
Sulfur	ppm	ASTM D5185m	16000	14844	19165	19364
Acid Number (AN)	mg KOH/g	ASTM D8045	2.5	2.58	2.72	2.35
Visc @ 40°C	cSt	ASTM D445	219	265	266	269



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0062437 **Received** : 09 Jan 2024
Lab Number : 06055507 **Diagnosed** : 10 Jan 2024
Unique Number : 10821456 **Diagnostician** : Sean Felton
Test Package : MAR 2

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)

AMERICAN COMMERCIAL LINES
 PO BOX 610, 1701 E. MARKET STREET
 JEFFERSONVILLE, IN
 US 47130
 Contact: RONALD SCHNEIDER
 ronald.schneider@bargeacbl.com
 T:
 F: (812)288-1644