



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
OH INGRAM
Machine Id
[OH INGRAM] 011 - FLANKING 645896-11 - FL
Component
Hydraulic System
Fluid
CHEVRON RANDO HDZ 68 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		MW0064755	MW0052464	MW0034052
Sample Date		Client Info		01 Jan 2024	01 Jul 2023	01 Jan 2023
Machine Age	hrs	Client Info		0	24800	50689
Oil Age	hrs	Client Info		0	0	50689
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	Not Changed
Filter Changed		Client Info		N/A	N/A	None
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	1	2	2
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	0
Aluminum	ppm	ASTM D5185m	>10	0	0	0
Lead	ppm	ASTM D5185m	>20	2	0	0
Copper	ppm	ASTM D5185m	>20	<1	2	1
Tin	ppm	ASTM D5185m	>10	1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

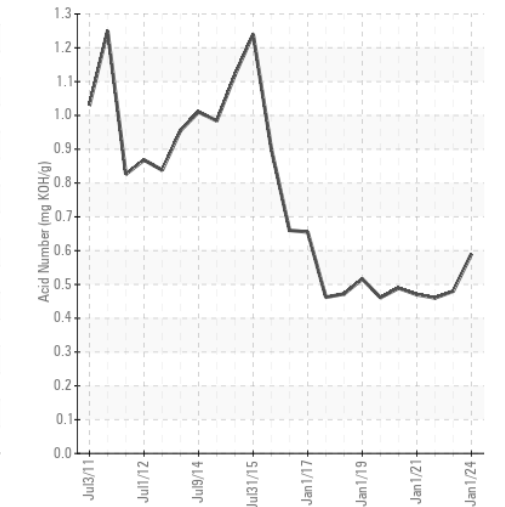
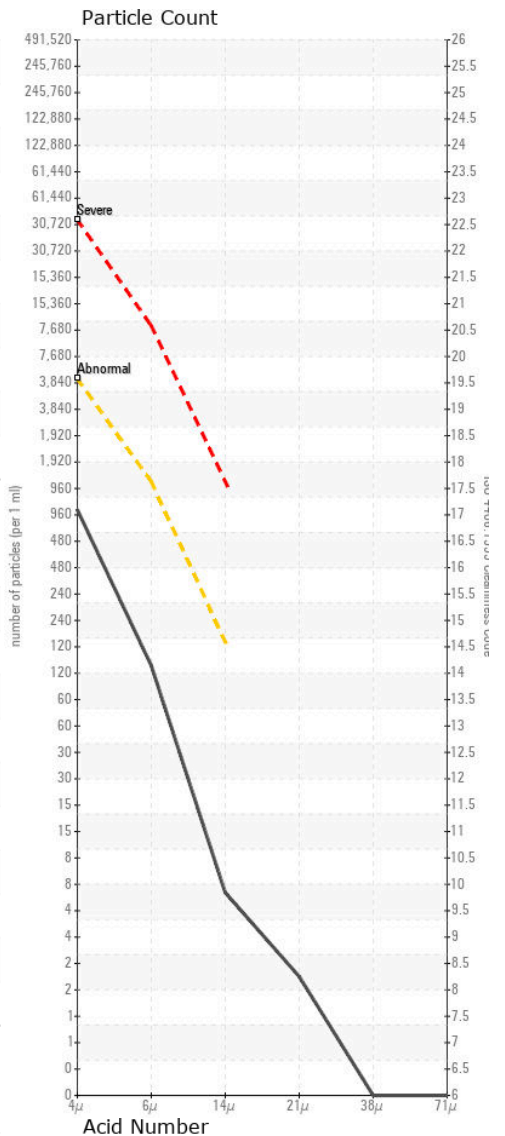
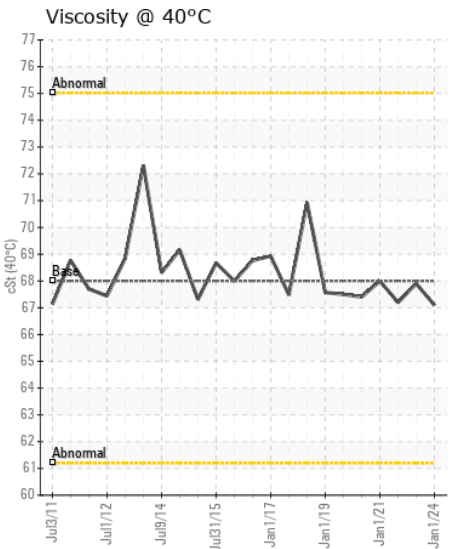
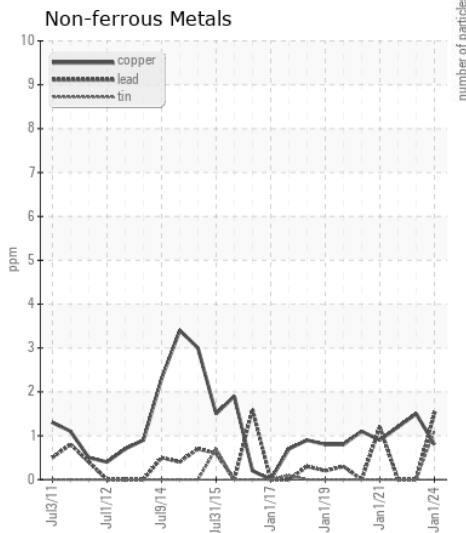
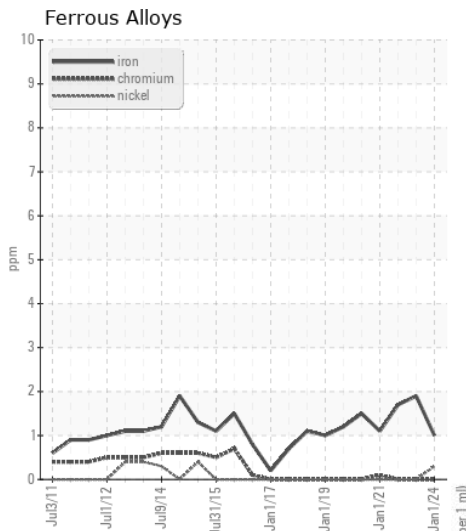
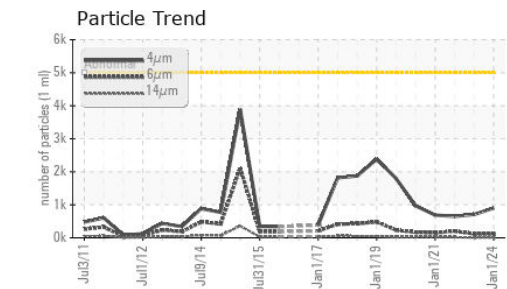
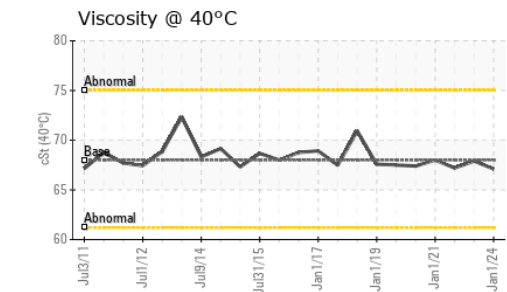
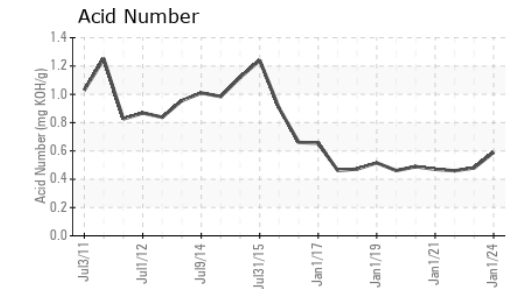
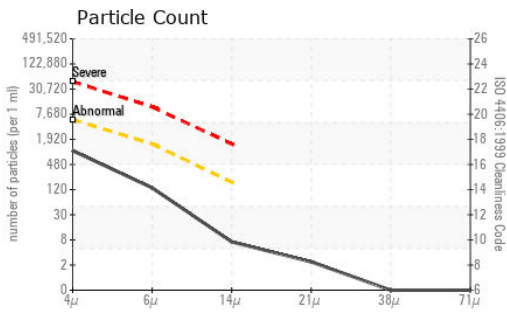
The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Silicon	ppm	ASTM D5185m	>15	1	<1	1
Potassium	ppm	ASTM D5185m	>20	<1	<1	0
Water		WC Method	>0.05	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	900	707	649
Particles >6µm		ASTM D7647	>1300	117	117	205
Particles >14µm		ASTM D7647	>160	6	5	19
Particles >21µm		ASTM D7647	>40	2	1	5
Particles >38µm		ASTM D7647	>10	0	0	1
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	17/14/10	17/14/10	17/15/11
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	>0.05	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	0
Boron	ppm	ASTM D5185m	0	0	0	0
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	<1	0
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m	0	<1	0	<1
Calcium	ppm	ASTM D5185m	75	63	63	58
Phosphorus	ppm	ASTM D5185m	275	411	406	385
Zinc	ppm	ASTM D5185m	350	561	524	484
Sulfur	ppm	ASTM D5185m	550	1573	1828	1730
Acid Number (AN)	mg KOH/g	ASTM D8045		0.59	0.48	0.46
Visc @ 40°C	cSt	ASTM D445	68.0	67.1	67.9	67.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : MW0064755
Lab Number : 06103654
Unique Number : 10901884
Test Package : MAR 2

Received : 28 Feb 2024
Tested : 29 Feb 2024
Diagnosed : 29 Feb 2024 - Wes Davis

INGRAM BARGE
 900 S 3RD ST
 PADUCAH, KY
 US 42003

Contact: ALLEN WILLHELM
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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)