



WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Machine Id
HRM #2
 Component
Lube System
 Fluid
PETRO CANADA ENDURATEX EP 460 (--- GAL)

RECOMMENDATION

Check seals and/or filters for points of contaminant entry. We advise that you check all areas where contaminants can enter the system. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We advise that you follow the water drain-off procedure for this component. We advise that you perform a filter service, and use off-line filtration to improve the cleanliness of the system fluid. Resample in 30-45 days to monitor this situation. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

WEAR

All component wear rates are normal.

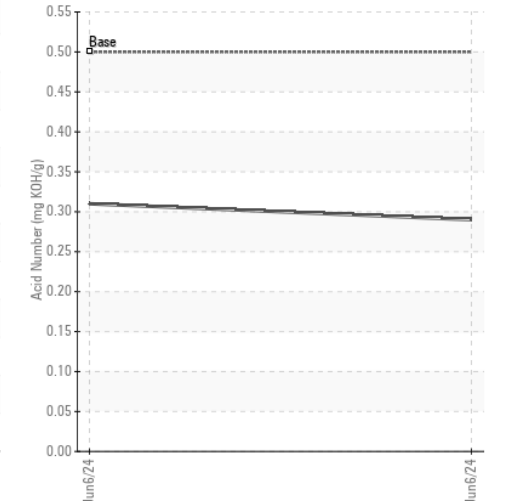
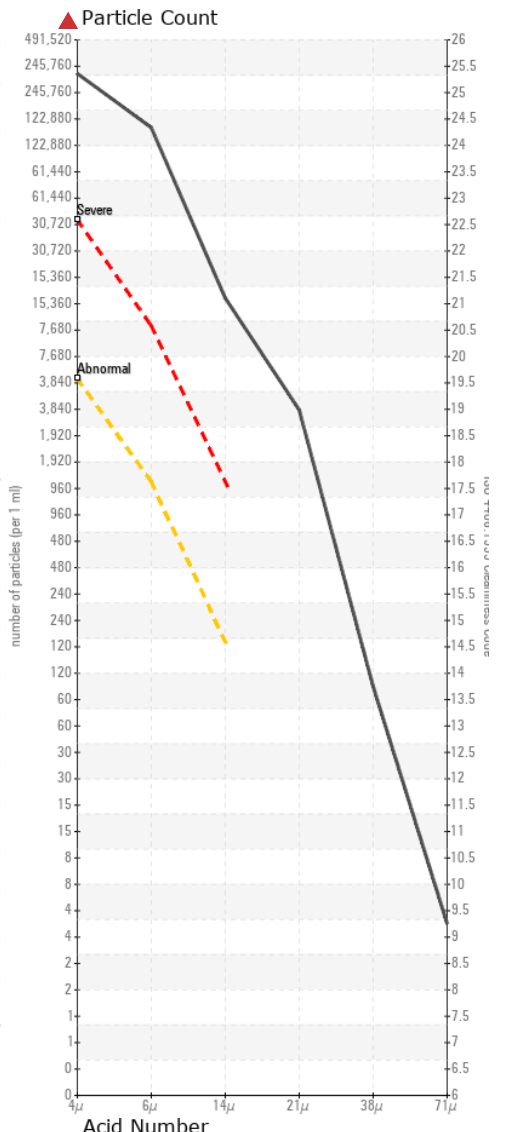
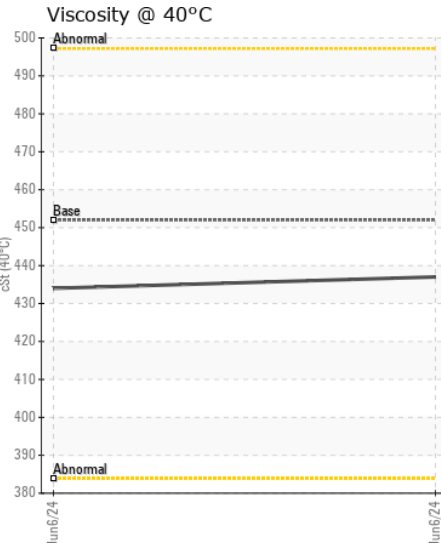
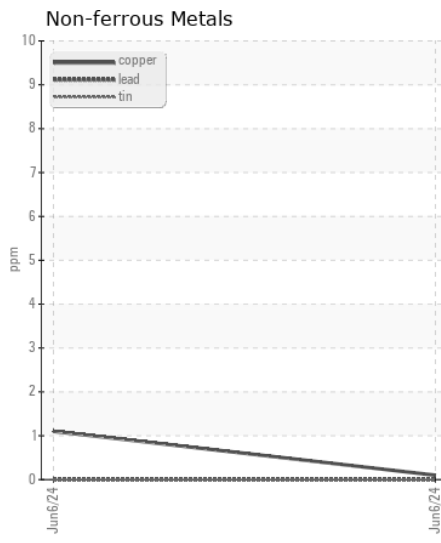
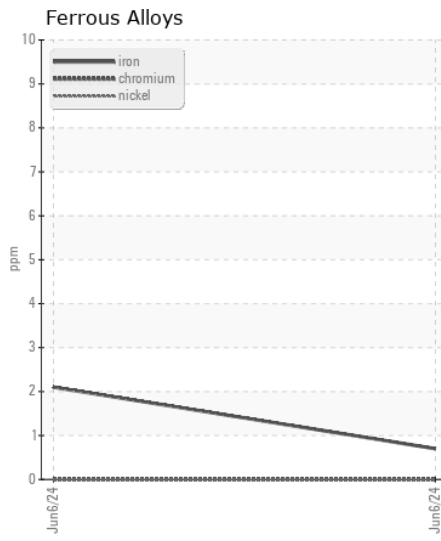
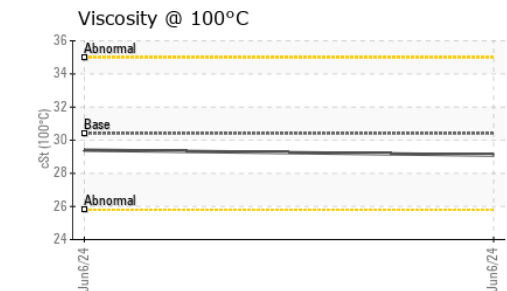
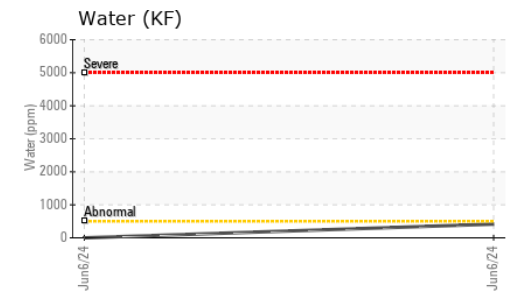
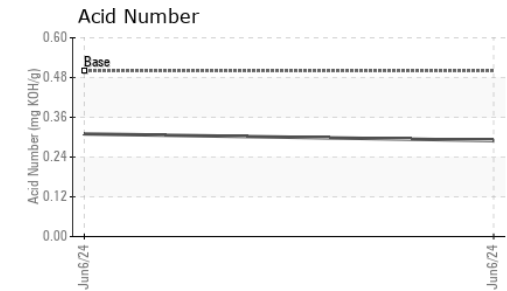
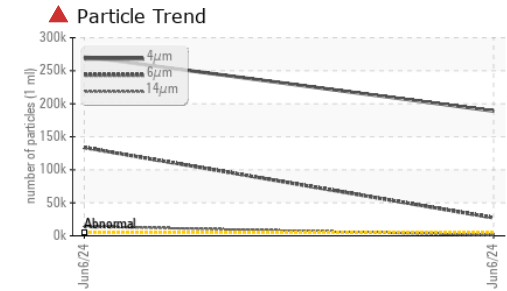
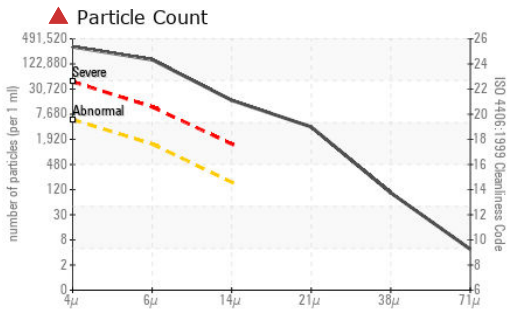
CONTAMINATION

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

FLUID CONDITION

The AN level is acceptable for this fluid.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PC0070433	PC0070428	---
Sample Date		Client Info		06 Jun 2024	06 Jun 2024	---
Machine Age	days	Client Info		14	14	---
Oil Age	days	Client Info		0	0	---
Filter Age	days	Client Info		0	0	---
Oil Changed		Client Info		N/A	N/A	---
Filter Changed		Client Info		N/A	N/A	---
Sample Status				SEVERE	SEVERE	---
Iron	ppm	ASTM D5185(m)	>20	2	<1	---
Chromium	ppm	ASTM D5185(m)	>20	0	0	---
Nickel	ppm	ASTM D5185(m)	>20	0	0	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)		0	0	---
Aluminum	ppm	ASTM D5185(m)	>20	5	0	---
Lead	ppm	ASTM D5185(m)	>20	0	0	---
Copper	ppm	ASTM D5185(m)	>20	1	<1	---
Tin	ppm	ASTM D5185(m)	>20	0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
White Metal	scalar	Visual*	NONE	NONE	NONE	---
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	---
Silicon	ppm	ASTM D5185(m)	>15	10	3	---
Potassium	ppm	ASTM D5185(m)	>20	1	<1	---
Water	%	ASTM D6304*	>0.05	0.041	---	---
ppm Water	ppm	ASTM D6304*	>500	415	---	---
Particles >4µm		ASTM D7647	>5000	▲ 271278	▲ 188962	---
Particles >6µm		ASTM D7647	>1300	▲ 133648	▲ 27200	---
Particles >14µm		ASTM D7647	>160	▲ 14356	▲ 990	---
Particles >21µm		ASTM D7647	>40	▲ 3326	▲ 271	---
Particles >38µm		ASTM D7647	>10	▲ 89	10	---
Particles >71µm		ASTM D7647	>3	4	2	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ 25/24/21	▲ 25/22/17	---
Silt	scalar	Visual*	NONE	NONE	NONE	---
Debris	scalar	Visual*	NONE	VLITE	NONE	---
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	---
Appearance	scalar	Visual*	NORML	NORML	NORML	---
Odor	scalar	Visual*	NORML	NORML	NORML	---
Emulsified Water	scalar	Visual*	>0.05	NEG	NEG	---
Sodium	ppm	ASTM D5185(m)		<1	0	---
Boron	ppm	ASTM D5185(m)	55	10	15	---
Barium	ppm	ASTM D5185(m)	0	0	0	---
Molybdenum	ppm	ASTM D5185(m)	0	0	0	---
Manganese	ppm	ASTM D5185(m)	0	0	0	---
Magnesium	ppm	ASTM D5185(m)	2	2	1	---
Calcium	ppm	ASTM D5185(m)	6	13	3	---
Phosphorus	ppm	ASTM D5185(m)	240	164	160	---
Zinc	ppm	ASTM D5185(m)	3	6	5	---
Sulfur	ppm	ASTM D5185(m)	10310	6587	6552	---
Acid Number (AN)	mg KOH/g	ASTM D974*	0.5	0.29	0.31	---
Visc @ 40°C	cSt	ASTM D7279(m)	452	437	434	---
Visc @ 100°C	cSt	ASTM D7279(m)	30.41	29.1	29.4	---
Viscosity Index (VI)	Scale	ASTM D2270*	97	94	95	---



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0070433
Lab Number : 02640870
Unique Number : 5798409
Test Package : IND 2 (Additional Tests: KF, KV100, VI)
Received : 10 Jun 2024
Tested : 12 Jun 2024
Diagnosed : 12 Jun 2024 - Kevin Marson

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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.