



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	NORMAL

Area
TUMBLE
Machine Id
B37183 - W AMFEC HYD RES (S/N 960787)
Component
Hydraulic System
Fluid
PETRO CANADA PURITY FG AW HYDRAULIC 46 (175 GAL)

RECOMMENDATION

We advise that you check for the source of water entry. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition. Please note that there was too much water present in the oil to perform a all tests.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0914015	WC0856687	WC0828356
Sample Date		Client Info		12 Apr 2024	11 Oct 2023	16 Jul 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	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

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

CONTAMINATION

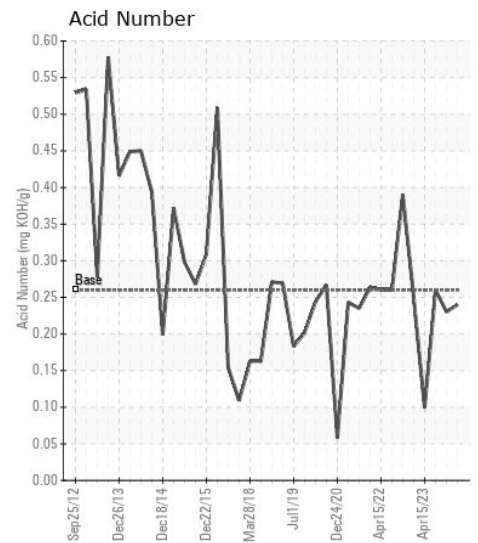
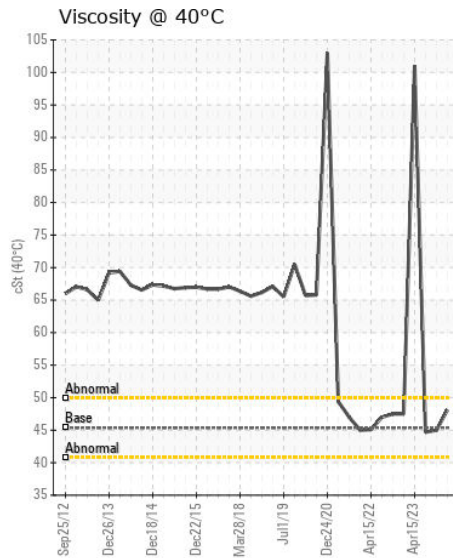
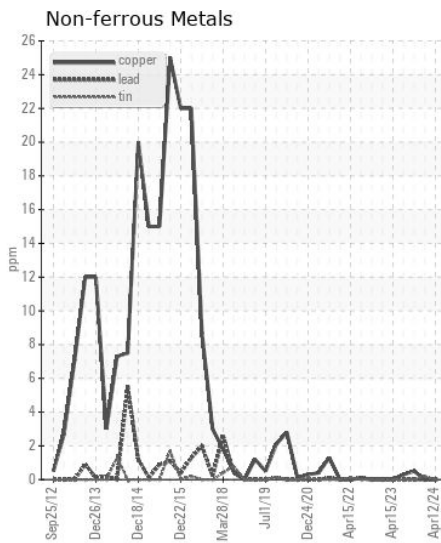
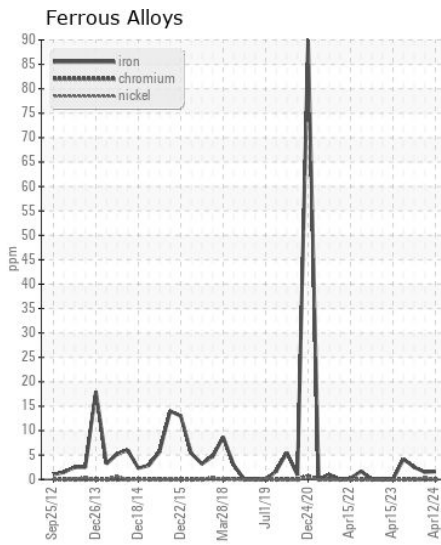
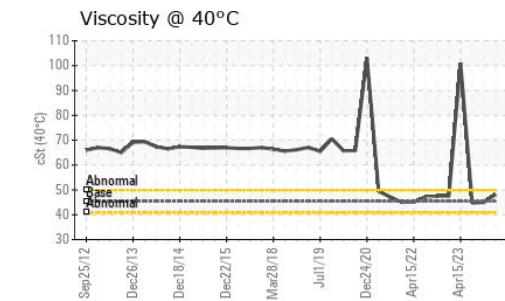
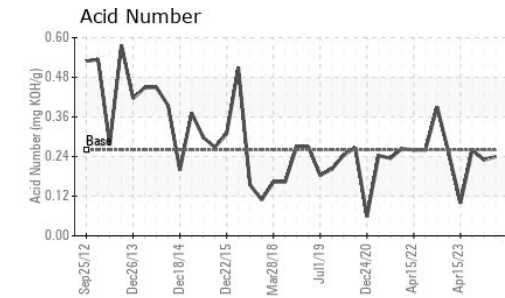
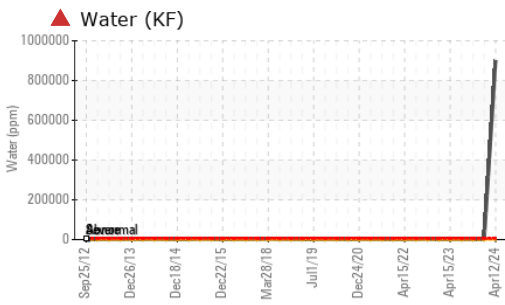
Sample consists almost entirely of free water. There is a high concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>15	3	2	4
Potassium	ppm	ASTM D5185m	>20	0	2	0
Water	%	ASTM D6304	>0.05	▲ 90.0	▲ 0.118	0.002
ppm Water	ppm	ASTM D6304	>500	▲ 900000	▲ 1180	20.1
Particles >4µm		ASTM D7647	>10000	---	1800	1121
Particles >6µm		ASTM D7647	>1300	---	304	209
Particles >14µm		ASTM D7647	>160	---	12	16
Particles >21µm		ASTM D7647	>40	---	2	5
Particles >38µm		ASTM D7647	>10	---	1	0
Particles >71µm		ASTM D7647	>3	---	1	0
Oil Cleanliness		ISO 4406 (c)	>20/17/14	---	18/15/11	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	● HAZY	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	▲ 0.2%	NEG

FLUID CONDITION

The oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m		<1	6	<1
Boron	ppm	ASTM D5185m		0	0	0
Barium	ppm	ASTM D5185m		0	0	2
Molybdenum	ppm	ASTM D5185m		1	0	0
Manganese	ppm	ASTM D5185m		0	<1	0
Magnesium	ppm	ASTM D5185m		0	2	0
Calcium	ppm	ASTM D5185m		1	2	0
Phosphorus	ppm	ASTM D5185m		441	446	558
Zinc	ppm	ASTM D5185m		6	2	5
Sulfur	ppm	ASTM D5185m		615	524	650
Acid Number (AN)	mg KOH/g	ASTM D8045	0.26	---	0.24	0.23
Visc @ 40°C	cSt	ASTM D445	45.36	---	48.1	45.0



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0914015 **Received** : 19 Apr 2024
Lab Number : 06155018 **Tested** : 24 Apr 2024
Unique Number : 10990441 **Diagnosed** : 24 Apr 2024 - Jonathan Hester
Test Package : IND 2 (Additional Tests: KF)

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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)