



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Machine Id
LIEBHERR L586 068244

Component
Hydraulic System

Fluid
PETRO CANADA HYDREX XV ALL SEASON HYDRAULIC OIL (--- GAL)

RECOMMENDATION

We recommend you service the filters on this component. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0278596	LH0278518	LH
Sample Date		Client Info		21 Feb 2024	22 Dec 2023	15 Sep 2023
Machine Age	hrs	Client Info		8026	7142	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				ABNORMAL	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>50	9	7	4
Chromium	ppm	ASTM D5185(m)	>5	2	2	<1
Nickel	ppm	ASTM D5185(m)	>2	0	<1	0
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)		0	0	<1
Aluminum	ppm	ASTM D5185(m)	>5	1	<1	<1
Lead	ppm	ASTM D5185(m)	>15	4	2	2
Copper	ppm	ASTM D5185(m)	>10	1	1	<1
Tin	ppm	ASTM D5185(m)	>2	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0
White Metal	scalar	Visual*	NONE	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE	NONE

CONTAMINATION

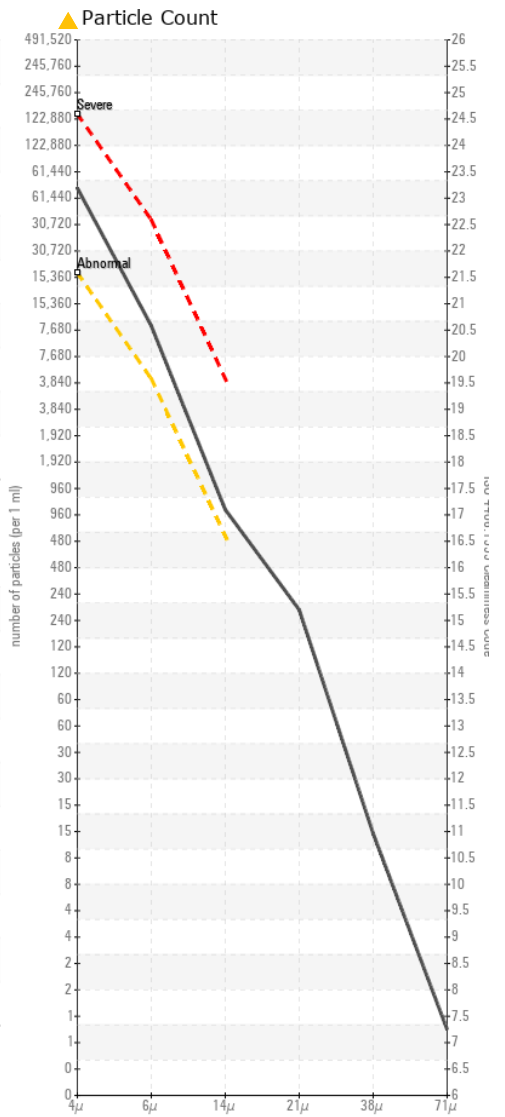
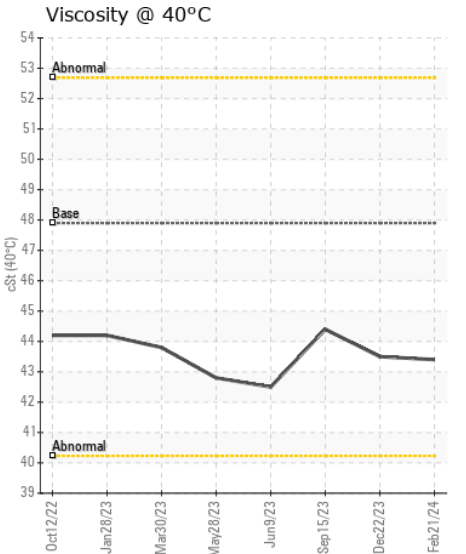
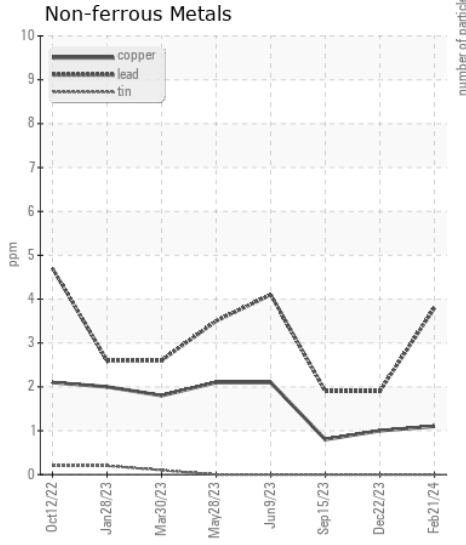
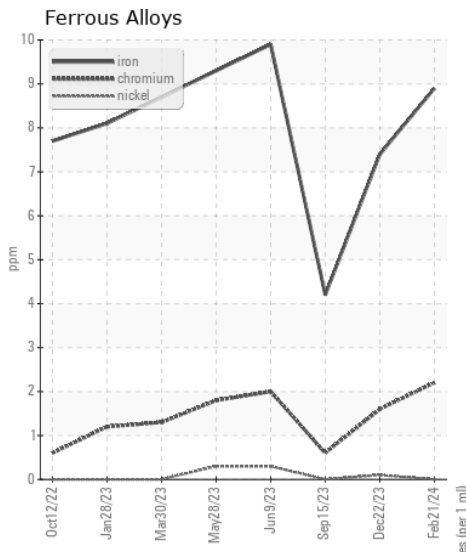
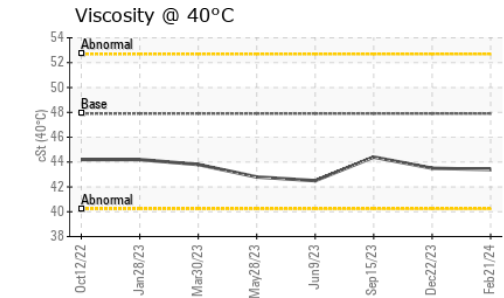
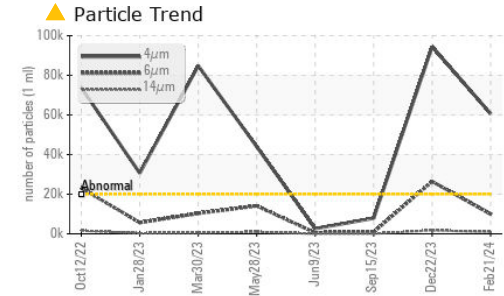
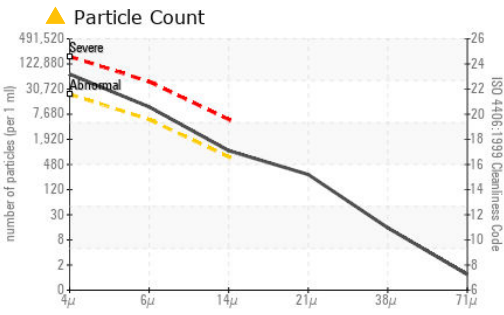
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185(m)	>15	2	2	1
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	0
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	▲ 60599	▲ 94488	7891
Particles >6µm		ASTM D7647	>5000	● 9993	▲ 26430	902
Particles >14µm		ASTM D7647	>640	● 902	▲ 1766	28
Particles >21µm		ASTM D7647	>160	● 243	▲ 352	8
Particles >38µm		ASTM D7647	>40	13	14	2
Particles >71µm		ASTM D7647	>10	1	1	0
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 23/20/17	▲ 24/22/18	20/17/12
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	VLITE	VLITE
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 oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185(m)		<1	<1	<1
Boron	ppm	ASTM D5185(m)	0	0	0	<1
Barium	ppm	ASTM D5185(m)	0	<1	<1	<1
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)	1	0	0	0
Magnesium	ppm	ASTM D5185(m)	0	17	20	24
Calcium	ppm	ASTM D5185(m)	100	189	189	211
Phosphorus	ppm	ASTM D5185(m)	670	607	549	578
Zinc	ppm	ASTM D5185(m)	850	760	688	735
Sulfur	ppm	ASTM D5185(m)	1600	1708	1625	1618
Visc @ 40°C	cSt	ASTM D7279(m)	47.9	43.4	43.5	44.4



ISO 17025:2017
Accredited
Laboratory

Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0278596
Lab Number : 02619560
Unique Number : 5736670
Test Package : MOB 1 (Additional Tests: PrtCount)

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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.