



LIEBHERR

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL



Area
(362878)
Machine Id
LIEBHERR LH80M 135287-1218

Component
Hydraulic System

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

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		LH0274822	LH0284937	LH0277419
Sample Date		Client Info		04 Mar 2024	08 Feb 2024	23 Oct 2023
Machine Age	hrs	Client Info		10640	10128	8967
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Not Changed
Filter Changed		Client Info		None	N/A	N/A
Sample Status				ATTENTION	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>60	16	31	29
Chromium	ppm	ASTM D5185(m)	>40	2	4	3
Nickel	ppm	ASTM D5185(m)	>10	<1	<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	0
Lead	ppm	ASTM D5185(m)	>5	0	<1	<1
Copper	ppm	ASTM D5185(m)	>15	2	4	3
Tin	ppm	ASTM D5185(m)	>5	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

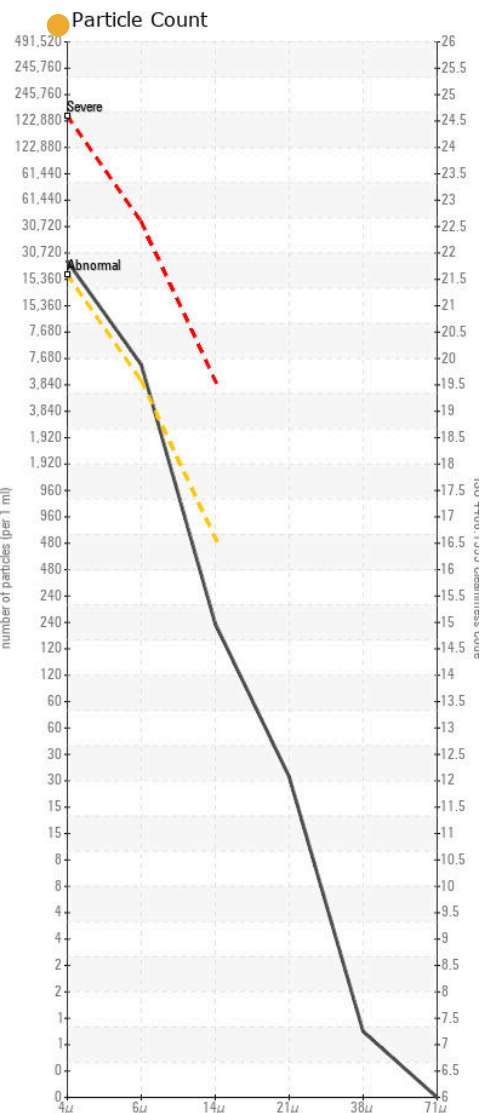
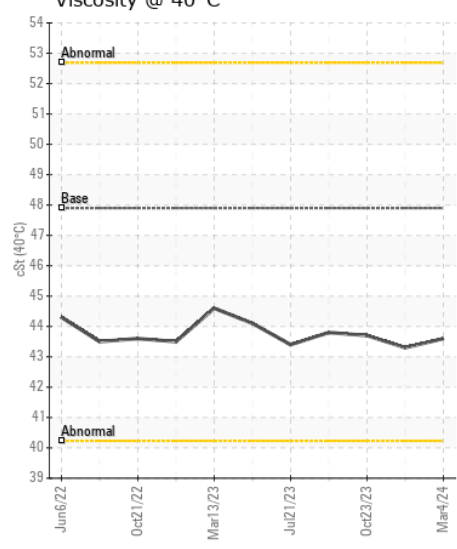
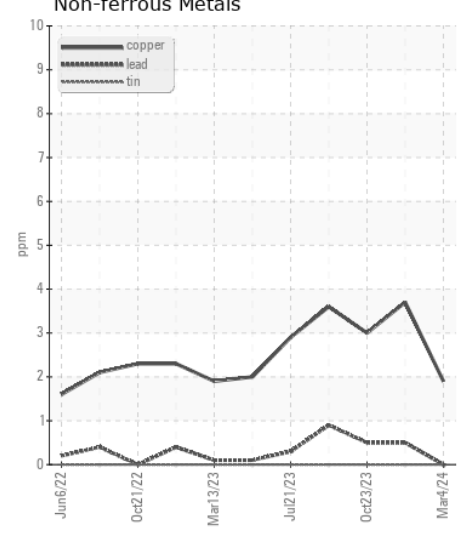
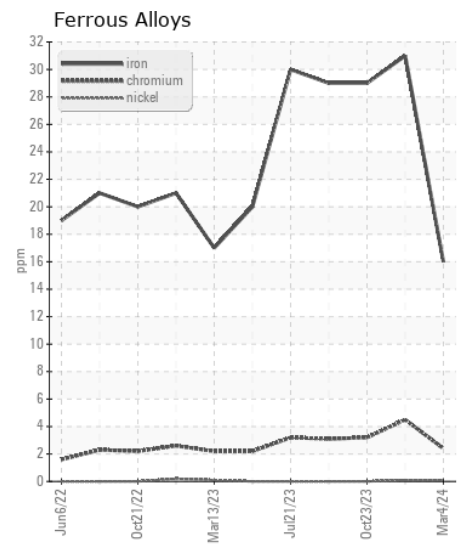
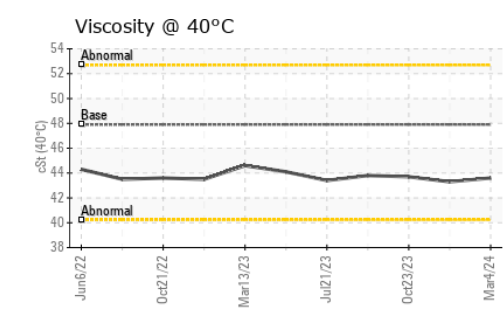
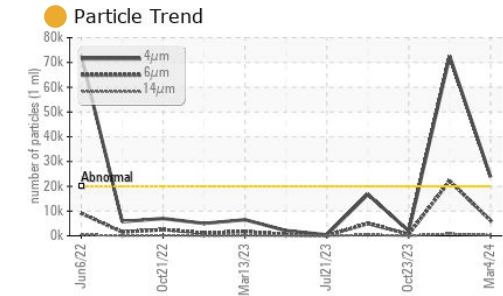
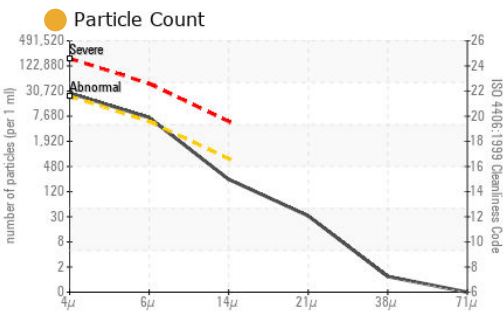
There is a light amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185(m)	>15	1	3	3
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	<1
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>20000	23819	72535	1953
Particles >6µm		ASTM D7647	>5000	6173	22140	658
Particles >14µm		ASTM D7647	>640	208	806	30
Particles >21µm		ASTM D7647	>160	28	103	3
Particles >38µm		ASTM D7647	>40	1	5	1
Particles >71µm		ASTM D7647	>10	0	0	1
Oil Cleanliness		ISO 4406 (c)	>21/19/16	22/20/15	23/22/17	18/17/12
Silt	scalar	Visual*	NONE	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	VLITE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	WGOIL	NORML
Odor	scalar	Visual*	NORML	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.1	NEG	.2%	NEG

FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		<1	<1	1
Boron	ppm	ASTM D5185(m)	0	<1	<1	1
Barium	ppm	ASTM D5185(m)	0	0	0	0
Molybdenum	ppm	ASTM D5185(m)	0	0	0	0
Manganese	ppm	ASTM D5185(m)	1	0	0	0
Magnesium	ppm	ASTM D5185(m)	0	1	3	3
Calcium	ppm	ASTM D5185(m)	100	154	211	225
Phosphorus	ppm	ASTM D5185(m)	670	495	432	448
Zinc	ppm	ASTM D5185(m)	850	600	520	551
Sulfur	ppm	ASTM D5185(m)	1600	1520	1502	1494
Visc @ 40°C	cSt	ASTM D7279(m)	47.9	43.6	43.3	43.7



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : LH0274822 **Received** : 05 Mar 2024
Lab Number : 02619976 **Tested** : 07 Mar 2024
Unique Number : 5737086 **Diagnosed** : 07 Mar 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: PrtCount)

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.

GERDAU AMERISTEEL
 1 GERDAU COURT
 WHITBY, ON
 CA L1N 5T1
 Contact: Tyson Young
 tyoung@gerdauameristeel.com
 T: (905)668-8811
 F: (905)668-6469