



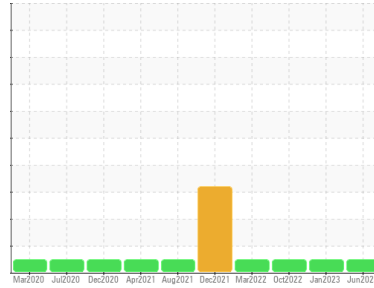
OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
OR564
Component
Hydraulic System
Fluid
PETRO CANADA HYDREX AW 46 (--- GAL)



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

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

SAMPLE INFORMATION

	method	limit/base	current	history 1	history 2
Sample Number	Client Info		GFL0087383	GFL0064913	GFL0056432
Sample Date	Client Info		19 Jun 2023	23 Jan 2023	27 Oct 2022
Machine Age	hrs	Client Info	18697	17502	16762
Oil Age	hrs	Client Info	2559	1500	1000
Oil Changed	Client Info		Not Chngd	Not Chngd	Not Chngd
Sample Status			NORMAL	NORMAL	NORMAL

WEAR METALS

	method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185(m) >71	3	3	2
Chromium	ppm	ASTM D5185(m) >11	5	4	3
Nickel	ppm	ASTM D5185(m) >6	<1	<1	<1
Titanium	ppm	ASTM D5185(m)	0	0	0
Silver	ppm	ASTM D5185(m)	0	0	0
Aluminum	ppm	ASTM D5185(m) >11	<1	<1	<1
Lead	ppm	ASTM D5185(m) >13	0	<1	0
Copper	ppm	ASTM D5185(m) >21	<1	<1	<1
Tin	ppm	ASTM D5185(m) >5	0	0	0
Antimony	ppm	ASTM D5185(m)	0	<1	0
Vanadium	ppm	ASTM D5185(m)	0	0	0
Beryllium	ppm	ASTM D5185(m)	0	0	0
Cadmium	ppm	ASTM D5185(m)	0	0	0

ADDITIVES

	method	limit/base	current	history 1	history 2
Boron	ppm	ASTM D5185(m) 0	<1	<1	<1
Barium	ppm	ASTM D5185(m) 0	0	0	0
Molybdenum	ppm	ASTM D5185(m) 0	<1	0	0
Manganese	ppm	ASTM D5185(m) 0	0	0	0
Magnesium	ppm	ASTM D5185(m) 0	4	3	2
Calcium	ppm	ASTM D5185(m) 50	118	126	118
Phosphorus	ppm	ASTM D5185(m) 330	647	661	662
Zinc	ppm	ASTM D5185(m) 430	783	786	775
Sulfur	ppm	ASTM D5185(m) 760	1420	1489	1463
Lithium	ppm	ASTM D5185(m)	<1	<1	<1

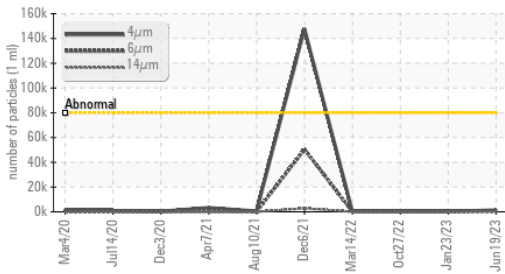
CONTAMINANTS

	method	limit/base	current	history 1	history 2
Silicon	ppm	ASTM D5185(m) >24	2	1	<1
Sodium	ppm	ASTM D5185(m) >21	2	2	2
Potassium	ppm	ASTM D5185(m) >20	<1	<1	0

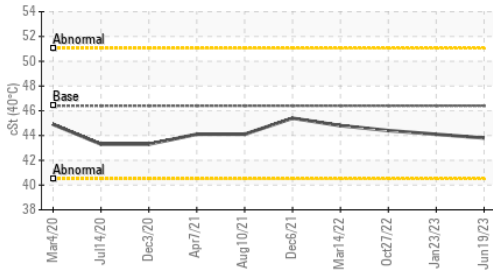
FLUID CLEANLINESS

	method	limit/base	current	history 1	history 2
Particles >4µm	ASTM D7647	>80000	1411	323	286
Particles >6µm	ASTM D7647	>5000	580	83	90
Particles >14µm	ASTM D7647	>640	97	10	9
Particles >21µm	ASTM D7647	>160	36	5	3
Particles >38µm	ASTM D7647	>40	1	0	0
Particles >71µm	ASTM D7647	>10	0	0	0
Oil Cleanliness	ISO 4406 (c)	>23/19/16	18/16/14	16/14/10	15/14/10

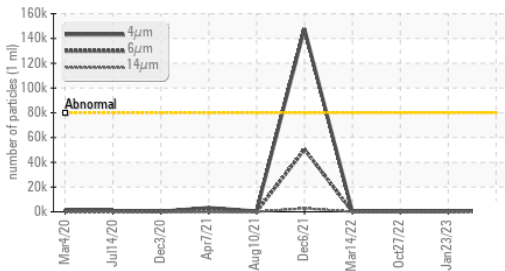
Particle Trend



Viscosity @ 40°C



Particle Trend



VISUAL	method	limit/base	current	history 1	history 2
White Metal	scalar	Visual*	NONE	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	NONE	NONE
Precipitate	scalar	Visual*	NONE	NONE	NONE
Silt	scalar	Visual*	NONE	NONE	NONE
Debris	scalar	Visual*	NONE	NONE	NONE
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE
Appearance	scalar	Visual*	NORML	NORML	NORML
Odor	scalar	Visual*	NORML	NORML	NORML
Emulsified Water	scalar	Visual*	>0.075	NEG	NEG
Free Water	scalar	Visual*		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history 1	history 2
Visc @ 40°C	cSt	ASTM D7279(m)	46.4	43.8	44.1

SAMPLE IMAGES	method	limit/base	current	history 1	history 2
---------------	--------	------------	---------	-----------	-----------

Color

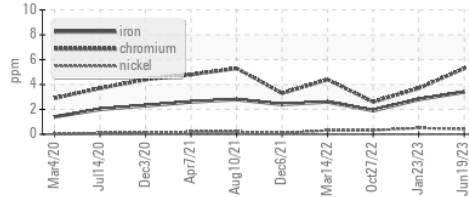


Bottom

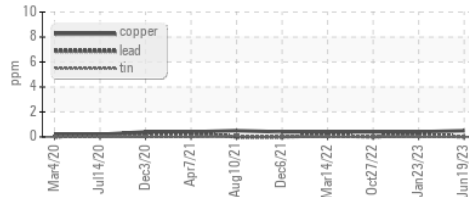


GRAPHS

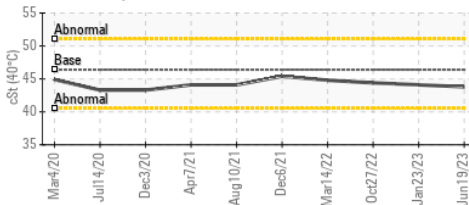
Ferrous Alloys



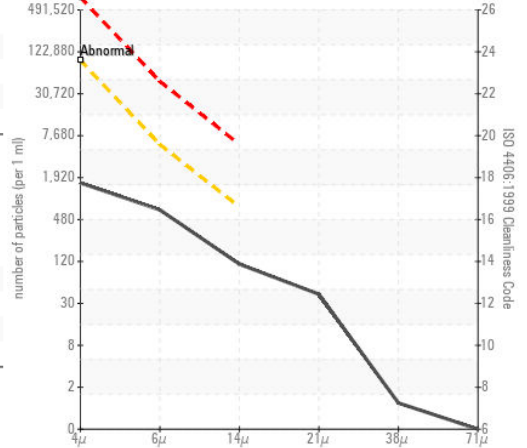
Non-ferrous Metals



Viscosity @ 40°C



Particle Count



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 GFL Environmental - 720 - Lafleche - Landfill
Sample No. : GFL0087383 **Received** : 29 Jun 2023
Lab Number : 02567335 **Diagnosed** : 30 Jun 2023
Unique Number : 5604381 **Diagnostician** : 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.

17125 Lafleche Road,
 Moose Creek, ON
 CA K0C 1W0
 Contact: Charles Bergeron
 cbergeron@gflenv.com
 T: (613)538-4853
 F: