



WEAR	ABNORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
G.LOPES CONSTRUCTION INC./Off-Road
Machine Id
E831
Component
Hydraulic System
Fluid
PETRO CANADA DURATRAN (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0083231	PCA0090621	PCA0078139
Sample Date		Client Info		25 Apr 2023	01 Feb 2023	17 Aug 2022
Machine Age	hrs	Client Info		8871	8110	8110
Oil Age	hrs	Client Info		7345	6941	7040
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				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

The iron level is abnormal. All other component wear rates are normal.

Iron	ppm	ASTM D5185m	>20	▲ 36	▲ 38	▲ 42
Chromium	ppm	ASTM D5185m	>10	6	6	6
Nickel	ppm	ASTM D5185m	>10	0	0	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m		0	0	0
Aluminum	ppm	ASTM D5185m	>10	2	2	2
Lead	ppm	ASTM D5185m	>10	0	1	1
Copper	ppm	ASTM D5185m	>75	16	17	16
Tin	ppm	ASTM D5185m	>10	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

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

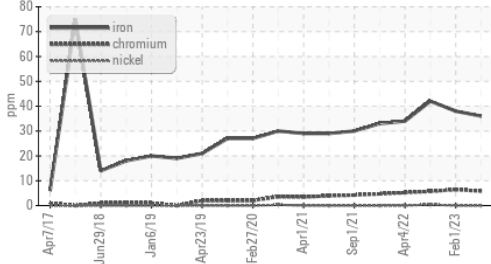
Silicon	ppm	ASTM D5185m	>20	4	4	4
Potassium	ppm	ASTM D5185m	>20	<1	2	3
Water		WC Method	>0.1	NEG	NEG	NEG
Particles >4µm		ASTM D7647	>5000	766	3033	▲ 20517
Particles >6µm		ASTM D7647	>1300	103	123	130
Particles >14µm		ASTM D7647	>160	6	8	20
Particles >21µm		ASTM D7647	>40	1	2	7
Particles >38µm		ASTM D7647	>10	0	0	0
Particles >71µm		ASTM D7647	>3	0	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	17/14/10	19/14/10	▲ 22/14/11
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	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

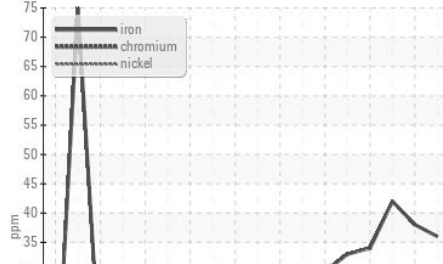
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	2	2
Boron	ppm	ASTM D5185m	110	2	0	3
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.0	<1	<1	<1
Manganese	ppm	ASTM D5185m	1	<1	<1	<1
Magnesium	ppm	ASTM D5185m	13	7	6	6
Calcium	ppm	ASTM D5185m	3610	340	213	248
Phosphorus	ppm	ASTM D5185m	1192	669	637	696
Zinc	ppm	ASTM D5185m	1455	912	831	940
Sulfur	ppm	ASTM D5185m	2641	1901	2049	1913
Acid Number (AN)	mg KOH/g	ASTM D8045	1.6	1.09	0.78	0.69
Visc @ 40°C	cSt	ASTM D445	55.14	41.7	42.1	42.1

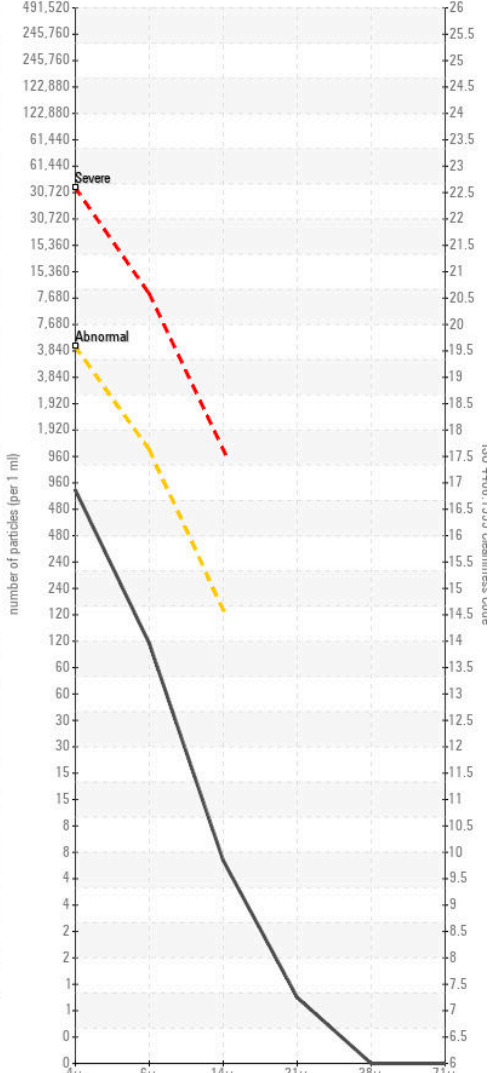
▲ Ferrous Alloys



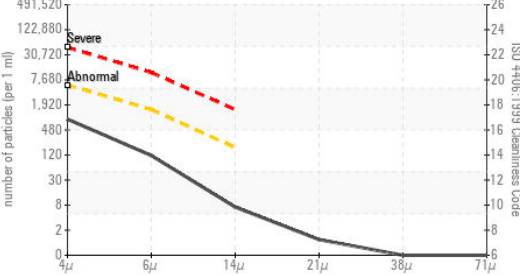
▲ Ferrous Alloys



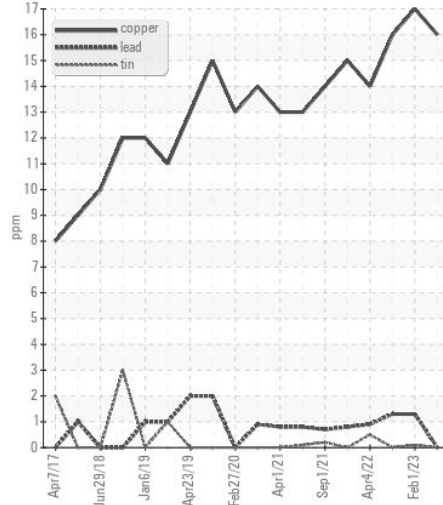
Particle Count



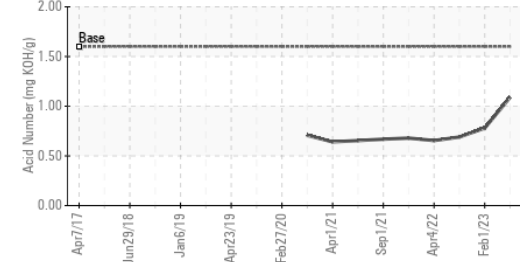
Particle Count



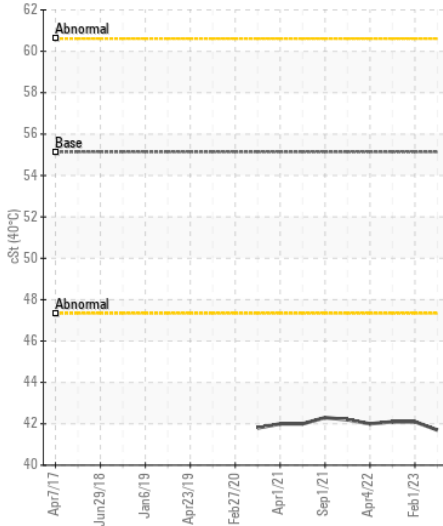
Non-ferrous Metals



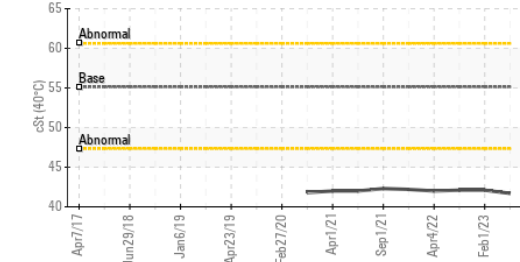
Acid Number



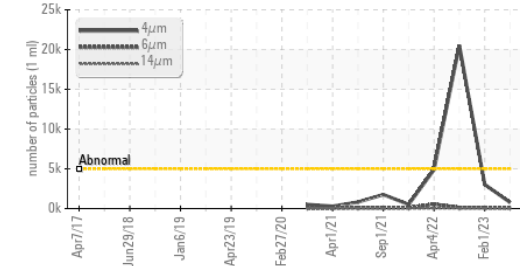
Viscosity @ 40°C



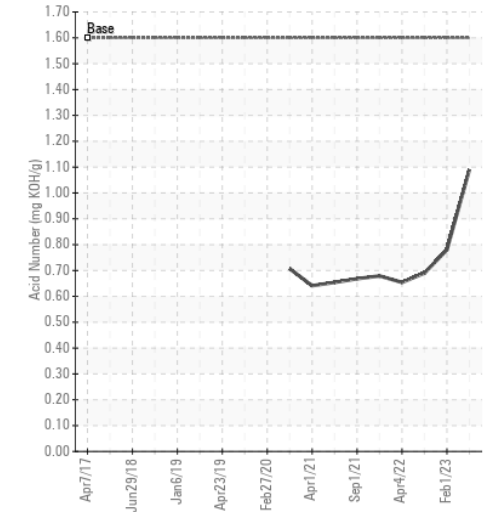
Viscosity @ 40°C



Particle Trend



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0083231 **Received** : 28 Apr 2023
Lab Number : 05832589 **Diagnosed** : 01 May 2023
Unique Number : 10446082 **Diagnostician** : Angela Borella
Test Package : MOB 2

G LOPES CONSTRUCTION
 565 WINTHROP ST
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 US 02780
 Contact: BUTCH MCGRATH
 bmcgrath@glopes.com
 T:
 F:

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)