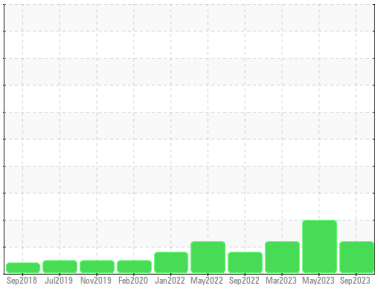
OIL ANALYSIS REPORT

Area
G.LOPES CONSTRUCTION INC./Off-Road
Machine Id
E60
Component
Hydraulic System
Fluid
PETRO CANADA DURATRAN (--- GAL)

Sample Rating Trend



ISO

DIAGNOSIS

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

Wear
All component wear rates are normal.

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

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number		Client Info		**PCA0104752**	PCA0098555	PCA0083073
Sample Date		Client Info		**20 Sep 2023**	12 May 2023	29 Mar 2023
Machine Age	hrs	Client Info		**11861**	11861	11250
Oil Age	hrs	Client Info		**11861**	11589	11250
Oil Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	SEVERE	ABNORMAL

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	**20**	15	13
Chromium	ppm	ASTM D5185m	>10	**<1**	1	1
Nickel	ppm	ASTM D5185m	>10	**0**	<1	0
Titanium	ppm	ASTM D5185m		**0**	<1	0
Silver	ppm	ASTM D5185m		**0**	<1	0
Aluminum	ppm	ASTM D5185m	>10	**1**	2	<1
Lead	ppm	ASTM D5185m	>10	**0**	<1	<1
Copper	ppm	ASTM D5185m	>75	**4**	3	3
Tin	ppm	ASTM D5185m	>10	**0**	1	0
Vanadium	ppm	ASTM D5185m		**0**	0	0
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	110	**67**	61	71
Barium	ppm	ASTM D5185m	0.0	**0**	0	0
Molybdenum	ppm	ASTM D5185m	0.0	**7**	8	5
Manganese	ppm	ASTM D5185m	1	**0**	<1	<1
Magnesium	ppm	ASTM D5185m	13	**84**	81	60
Calcium	ppm	ASTM D5185m	3610	**3104**	2992	3141
Phosphorus	ppm	ASTM D5185m	1192	**1006**	1034	1091
Zinc	ppm	ASTM D5185m	1455	**1259**	1280	1422
Sulfur	ppm	ASTM D5185m	2641	**4342**	4434	4362

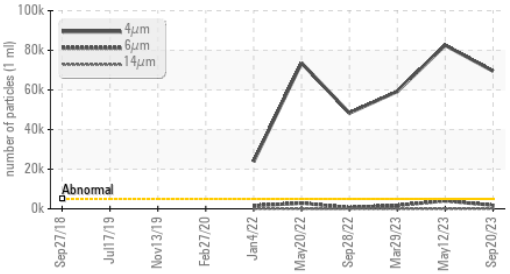
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**12**	12	11
Sodium	ppm	ASTM D5185m		**3**	2	2
Potassium	ppm	ASTM D5185m	>20	**2**	1	2

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	▲ **69485**	⬢ 82546	▲ 59252
Particles >6µm		ASTM D7647	>1300	▲ **1753**	▲ 4015	▲ 1703
Particles >14µm		ASTM D7647	>160	**33**	43	30
Particles >21µm		ASTM D7647	>40	**12**	8	7
Particles >38µm		ASTM D7647	>10	**1**	1	1
Particles >71µm		ASTM D7647	>3	**0**	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	▲ **23/18/12**	⬢ 24/19/13	▲ 23/18/12

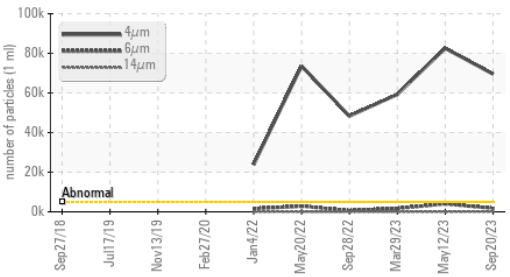
FLUID DEGRADATION		method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	1.6	**1.28**	1.23	1.93

OIL ANALYSIS REPORT

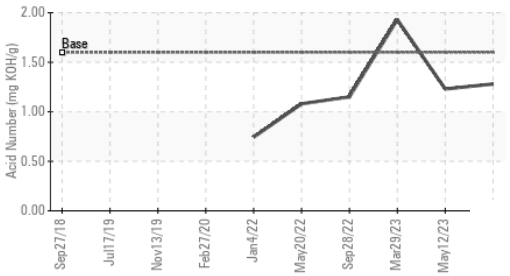
Particle Trend



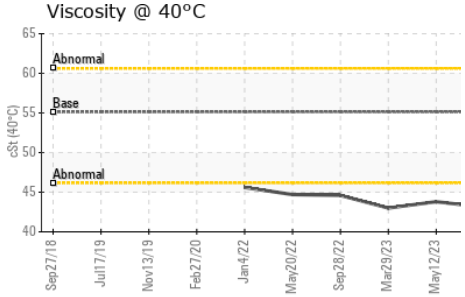
Particle Trend



Acid Number

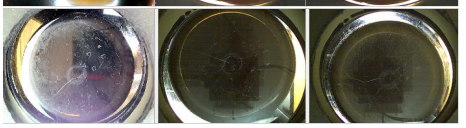


Viscosity @ 40°C



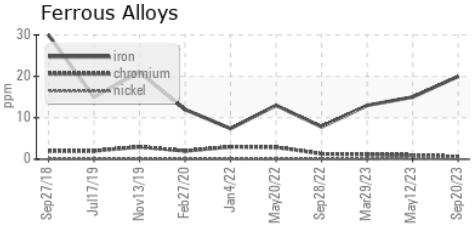
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Appearance	scalar	*Visual	NORML	**NORML**	NORML	NORML
Odor	scalar	*Visual	NORML	**NORML**	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	**NEG**	NEG	NEG
Free Water	scalar	*Visual		**NEG**	NEG	NEG

FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	55.14	**43.1**	43.8	43.0

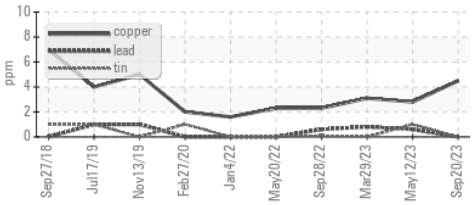
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color						
Bottom						

GRAPHS

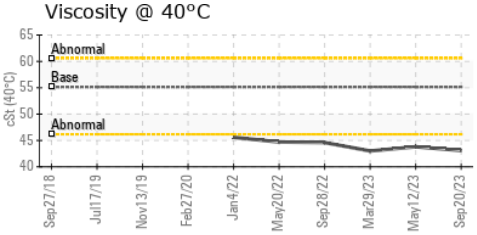
Ferrous Alloys



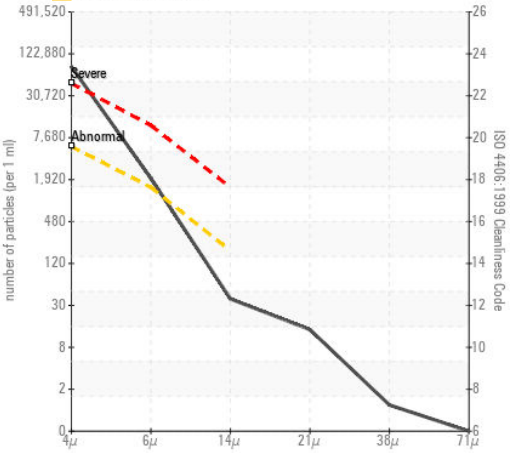
Non-ferrous Metals



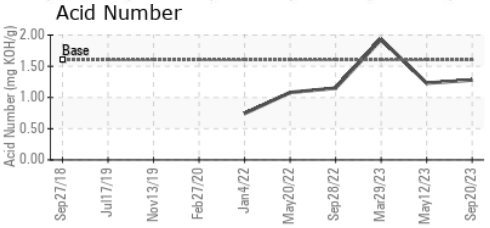
Viscosity @ 40°C



Particle Count



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0104752
Lab Number : 05958604
Unique Number : 10659817
Test Package : MOB 2

Received : 22 Sep 2023
Diagnosed : 24 Sep 2023
Diagnostician : Doug Bogart

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)

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