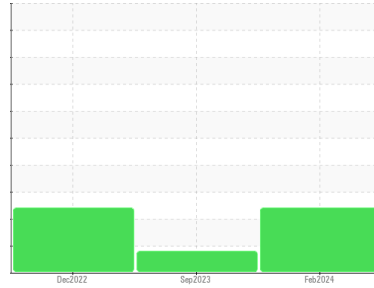


# OIL ANALYSIS REPORT



Area  
**G.LOPES CONSTRUCTION INC./OFF-ROAD**  
 Machine Id  
**E-104**  
 Component  
**Hydraulic System**  
 Fluid  
**PETRO CANADA DURATRAN (--- GAL)**

Sample Rating Trend



**WEAR**



## DIAGNOSIS

### Recommendation

No corrective action is recommended at this time. We recommend an early resample to monitor this condition.

### Wear

The iron level is abnormal. The chromium level is abnormal.

### Contamination

There is a high amount of silt (particulates < 6 microns in size) present in the oil.

### Fluid Condition

The AN level is acceptable for this fluid. The condition of the oil is acceptable for the time in service.

## SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	<b>PCA0018787</b>	PCA0104750	PCA0083409
Sample Date	Client Info	<b>07 Feb 2024</b>	20 Sep 2023	06 Dec 2022
Machine Age	hrs	<b>9403</b>	9015	0
Oil Age	hrs	<b>9403</b>	9015	0
Oil Changed	Client Info	<b>N/A</b>	N/A	N/A
Sample Status		<b>ABNORMAL</b>	ABNORMAL	ABNORMAL

## CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.1	<b>NEG</b>	NEG	NEG

## WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >20	<b>▲ 21</b>	15	▲ 33
Chromium	ppm ASTM D5185m >10	<b>▲ 20</b>	8	▲ 17
Nickel	ppm ASTM D5185m >10	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>0</b>	0	0
Silver	ppm ASTM D5185m	<b>0</b>	0	0
Aluminum	ppm ASTM D5185m >10	<b>1</b>	1	1
Lead	ppm ASTM D5185m >10	<b>0</b>	0	0
Copper	ppm ASTM D5185m >75	<b>2</b>	1	3
Tin	ppm ASTM D5185m >10	<b>0</b>	0	0
Vanadium	ppm ASTM D5185m	<b>0</b>	0	0
Cadmium	ppm ASTM D5185m	<b>0</b>	0	0

## ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 110	<b>61</b>	57	7
Barium	ppm ASTM D5185m 0.0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 0.0	<b>3</b>	2	2
Manganese	ppm ASTM D5185m 1	<b>&lt;1</b>	0	<1
Magnesium	ppm ASTM D5185m 13	<b>46</b>	53	17
Calcium	ppm ASTM D5185m 3610	<b>1907</b>	2022	278
Phosphorus	ppm ASTM D5185m 1192	<b>769</b>	794	460
Zinc	ppm ASTM D5185m 1455	<b>969</b>	1057	550
Sulfur	ppm ASTM D5185m 2641	<b>2579</b>	3194	2113

## CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >20	<b>9</b>	8	4
Sodium	ppm ASTM D5185m	<b>3</b>	3	1
Potassium	ppm ASTM D5185m >20	<b>0</b>	4	0

## FLUID CLEANLINESS

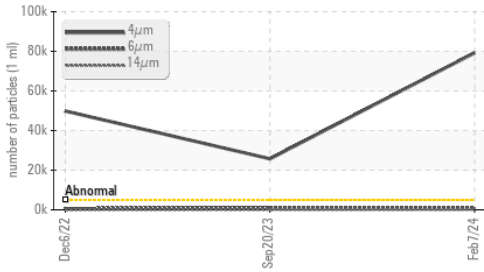
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	<b>▲ 79238</b>	▲ 25742	▲ 49865
Particles >6µm	ASTM D7647 >1300	<b>688</b>	1138	486
Particles >14µm	ASTM D7647 >160	<b>14</b>	31	10
Particles >21µm	ASTM D7647 >40	<b>3</b>	5	3
Particles >38µm	ASTM D7647 >10	<b>0</b>	1	0
Particles >71µm	ASTM D7647 >3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	<b>▲ 23/17/11</b>	▲ 22/17/12	▲ 23/16/10

## FLUID DEGRADATION

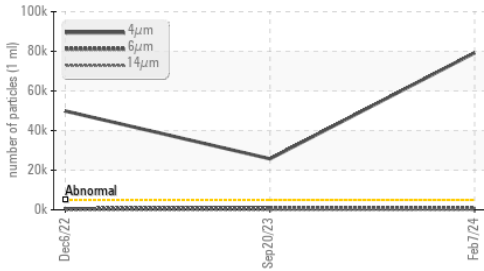
method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g ASTM D8045 1.6	<b>0.83</b>	0.84	0.43

# OIL ANALYSIS REPORT

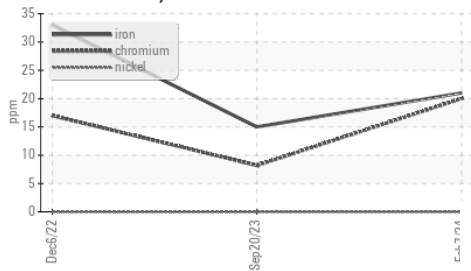
### ▲ Particle Trend



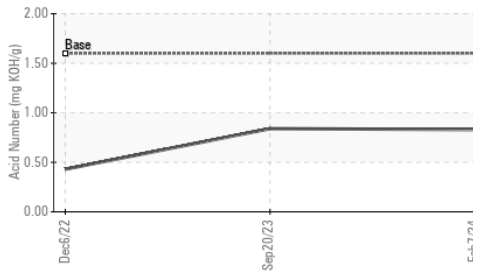
### ▲ Particle Trend



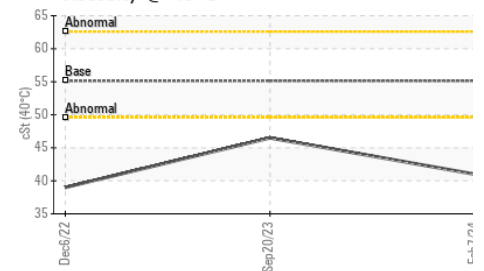
### ▲ Ferrous Alloys



### Acid Number



### Viscosity @ 40°C



VISUAL	method	limit/base	current	history1	history2
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	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	55.14	41.0	46.5

SAMPLE IMAGES	method	limit/base	current	history1	history2
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Color

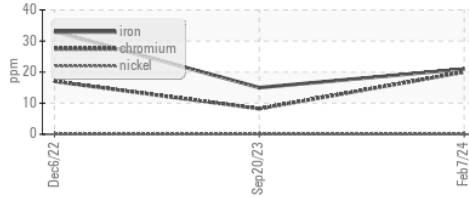


Bottom

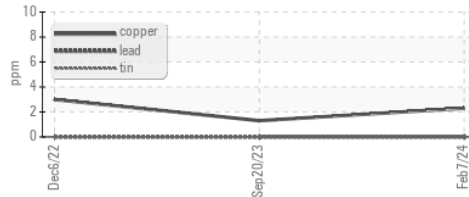


### GRAPHS

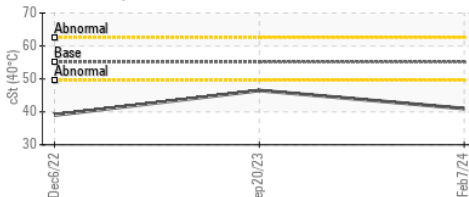
#### ▲ Ferrous Alloys



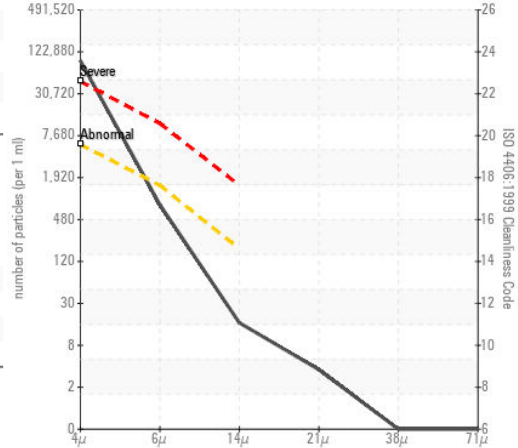
#### Non-ferrous Metals



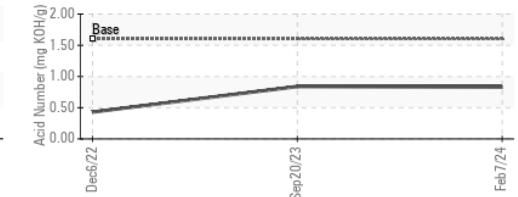
#### Viscosity @ 40°C



#### ▲ Particle Count



#### Acid Number



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : PCA0018787  
**Lab Number** : 06084767  
**Unique Number** : 10872212  
**Test Package** : MOB 2  
**Received** : 09 Feb 2024  
**Tested** : 12 Feb 2024  
**Diagnosed** : 12 Feb 2024 - Jonathan Hester

**G LOPES CONSTRUCTION**  
 565 WINTHROP ST  
 TAUNTON, MA  
 US 02780  
 Contact: BUTCH MCGRATH  
 bmcgrath@glopes.com

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)

T:  
F: