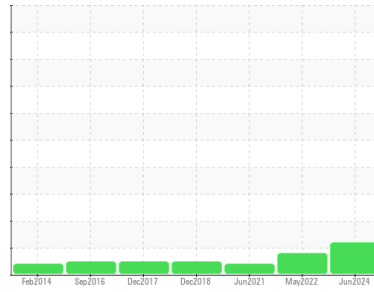


# OIL ANALYSIS REPORT



Area  
**G.LOPES CONSTRUCTION INC./Off-Road**  
 Machine Id  
**D615**  
 Component  
**Hydraulic System**  
 Fluid  
**PETRO CANADA DURATRAN (--- GAL)**

Sample Rating Trend



## 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	<b>PCA0122964</b>	PCA0072217	PCA0018417
Sample Date	Client Info	<b>12 Jun 2024</b>	03 May 2022	22 Jun 2021
Machine Age	hrs	<b>13103</b>	12152	11829
Oil Age	hrs	<b>11829</b>	323	0
Oil Changed	Client Info	<b>N/A</b>	N/A	Changed
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>10</b>	8	5
Chromium	ppm ASTM D5185m >10	<b>&lt;1</b>	<1	<1
Nickel	ppm ASTM D5185m >10	<b>0</b>	0	0
Titanium	ppm ASTM D5185m	<b>&lt;1</b>	<1	<1
Silver	ppm ASTM D5185m	<b>&lt;1</b>	<1	0
Aluminum	ppm ASTM D5185m >10	<b>2</b>	2	2
Lead	ppm ASTM D5185m >10	<b>2</b>	2	2
Copper	ppm ASTM D5185m >75	<b>11</b>	11	8
Tin	ppm ASTM D5185m >10	<b>0</b>	<1	<1
Antimony	ppm ASTM D5185m	<b>---</b>	---	2
Vanadium	ppm ASTM D5185m	<b>&lt;1</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>68</b>	70	80
Barium	ppm ASTM D5185m 0.0	<b>0</b>	0	0
Molybdenum	ppm ASTM D5185m 0.0	<b>6</b>	6	6
Manganese	ppm ASTM D5185m 1	<b>&lt;1</b>	<1	<1
Magnesium	ppm ASTM D5185m 13	<b>59</b>	57	56
Calcium	ppm ASTM D5185m 3610	<b>2121</b>	1778	1915
Phosphorus	ppm ASTM D5185m 1192	<b>939</b>	881	934
Zinc	ppm ASTM D5185m 1455	<b>1234</b>	1097	1135
Sulfur	ppm ASTM D5185m 2641	<b>4920</b>	3545	3998

## CONTAMINANTS

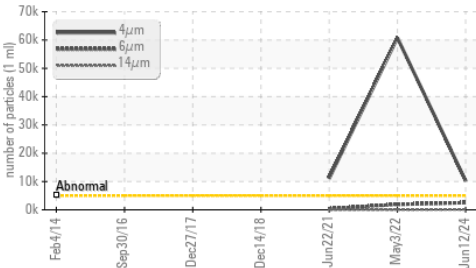
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >20	<b>9</b>	6	7
Sodium	ppm ASTM D5185m	<b>4</b>	3	5
Potassium	ppm ASTM D5185m >20	<b>&lt;1</b>	0	0

## FLUID CLEANLINESS

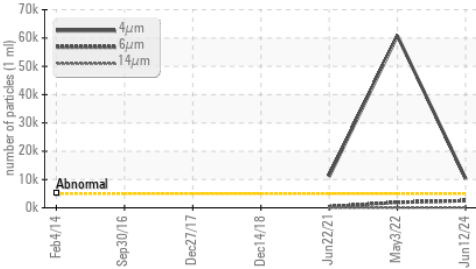
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	<b>▲ 10252</b>	▲ 60769	▲ 11087
Particles >6µm	ASTM D7647 >1300	<b>▲ 2535</b>	● 1921	362
Particles >14µm	ASTM D7647 >160	<b>100</b>	22	14
Particles >21µm	ASTM D7647 >40	<b>12</b>	5	5
Particles >38µm	ASTM D7647 >10	<b>0</b>	0	0
Particles >71µm	ASTM D7647 >3	<b>0</b>	0	0
Oil Cleanliness	ISO 4406 (c) >19/17/14	<b>▲ 21/19/14</b>	▲ 23/18/12	▲ 21/16/11

# OIL ANALYSIS REPORT

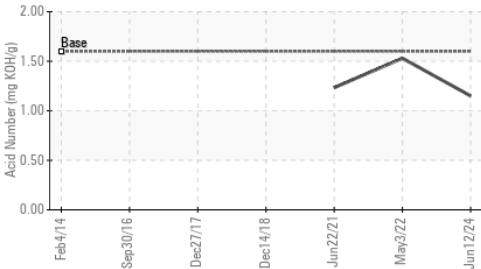
**▲ Particle Trend**



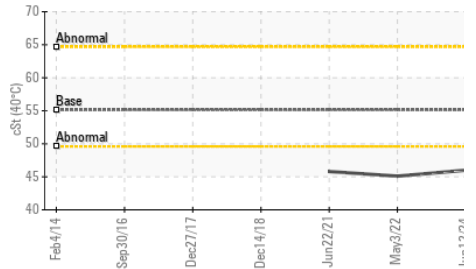
**▲ Particle Trend**



**Acid Number**



**Viscosity @ 40°C**



**FLUID DEGRADATION** method limit/base current history1 history2

Acid Number (AN) mg KOH/g ASTM D8045 1.6 **1.15** 1.53 1.233

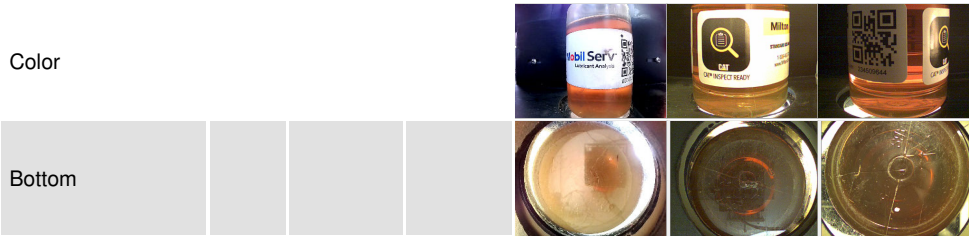
**VISUAL** method limit/base current history1 history2

White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Precipitate	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	<b>NEG</b>	NEG	NEG
Free Water	scalar	*Visual		<b>NEG</b>	NEG	NEG

**FLUID PROPERTIES** method limit/base current history1 history2

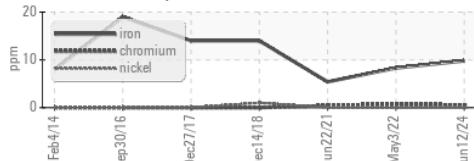
Visc @ 40°C cSt ASTM D445 55.14 **46.0** 45.1 45.8

**SAMPLE IMAGES** method limit/base current history1 history2

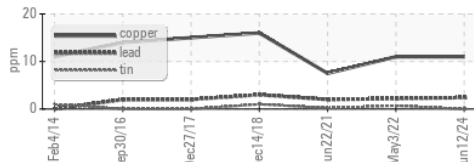


**GRAPHS**

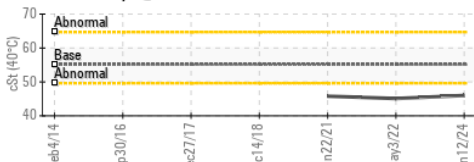
**Ferrous Alloys**



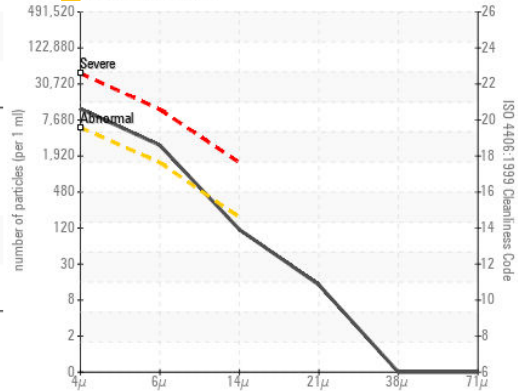
**Non-ferrous Metals**



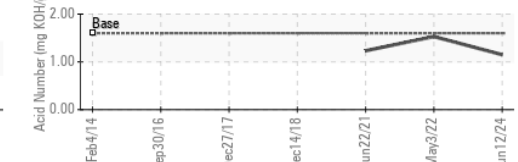
**Viscosity @ 40°C**



**▲ Particle Count**



**Acid Number**



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513

**Sample No.** : PCA0122964

**Lab Number** : 06210071

**Unique Number** : 11082935

**Test Package** : MOB 2

**Received** : 14 Jun 2024

**Tested** : 17 Jun 2024

**Diagnosed** : 17 Jun 2024 - Angela Borella

**G LOPES CONSTRUCTION**

565 WINTHROP ST

TAUNTON, MA

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)