



Machine Id  
**OR859**  
Component  
**Hydraulic System**  
Fluid  
**PETRO CANADA PRODURO TO-4 SAE 10W (--- GAL)**

**RECOMMENDATION**

The filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>GFL0100569</b>	GFL0077004	GFL0054674
Sample Date		Client Info		<b>23 May 2024</b>	25 Aug 2023	25 Aug 2022
Machine Age	hrs	Client Info		<b>11720</b>	0	10896
Oil Age	hrs	Client Info		<b>2000</b>	0	826
Filter Age	hrs	Client Info		<b>1000</b>	0	826
Oil Changed		Client Info		<b>Not Changd</b>	Not Changd	Not Changd
Filter Changed		Client Info		<b>Changed</b>	Not Changd	Changed
Sample Status				<b>ABNORMAL</b>	ABNORMAL	NORMAL

**WEAR**

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>20	<b>17</b>	8	13
Chromium	ppm	ASTM D5185(m)	>10	<b>1</b>	<1	1
Nickel	ppm	ASTM D5185(m)	>10	<b>0</b>	0	<1
Titanium	ppm	ASTM D5185(m)		<b>0</b>	0	<1
Silver	ppm	ASTM D5185(m)		<b>0</b>	<1	0
Aluminum	ppm	ASTM D5185(m)	>10	<b>2</b>	1	2
Lead	ppm	ASTM D5185(m)	>10	<b>3</b>	3	3
Copper	ppm	ASTM D5185(m)	>75	<b>10</b>	11	4
Tin	ppm	ASTM D5185(m)	>10	<b>0</b>	<1	0
Vanadium	ppm	ASTM D5185(m)		<b>0</b>	0	0
White Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	Visual*	NONE	<b>NONE</b>	NONE	NONE

**CONTAMINATION**

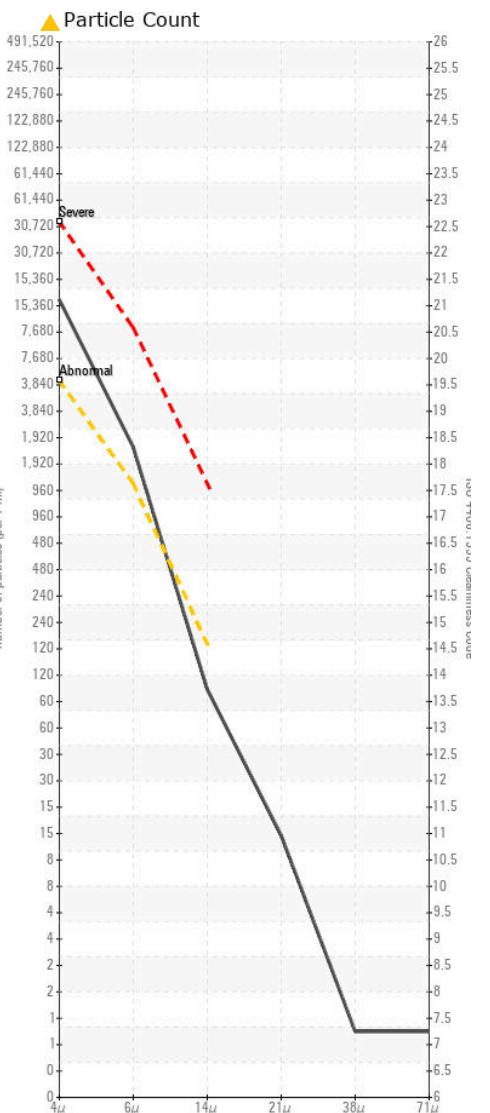
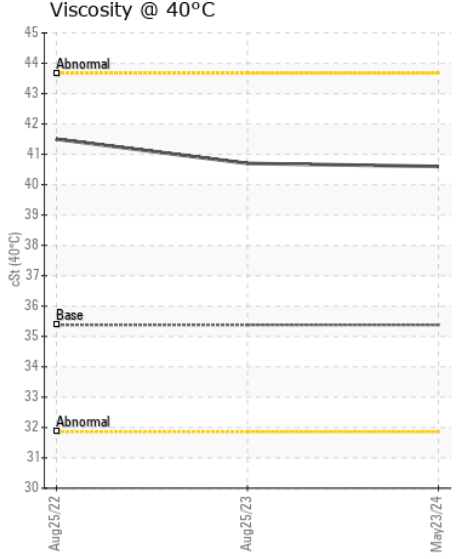
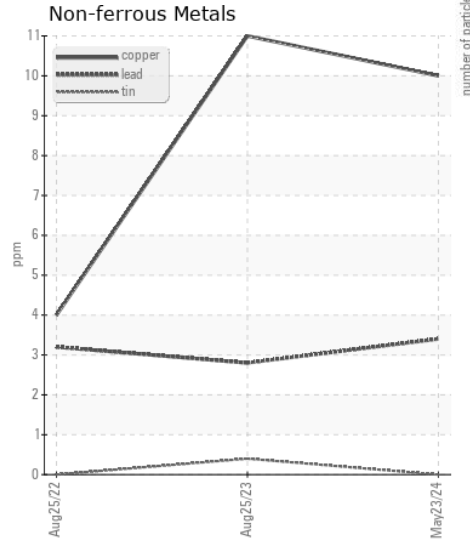
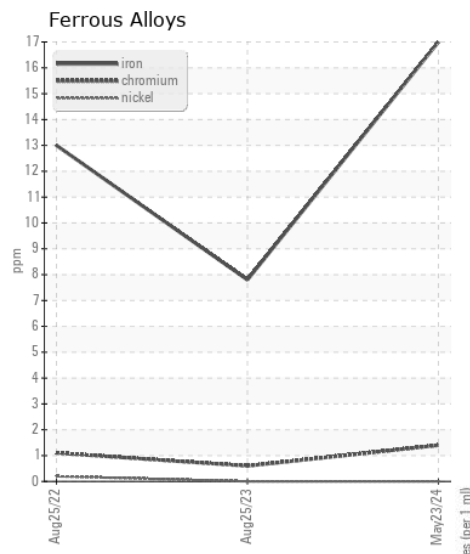
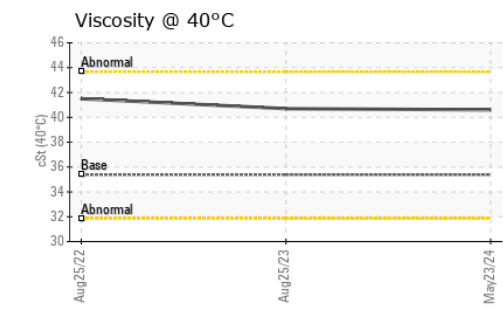
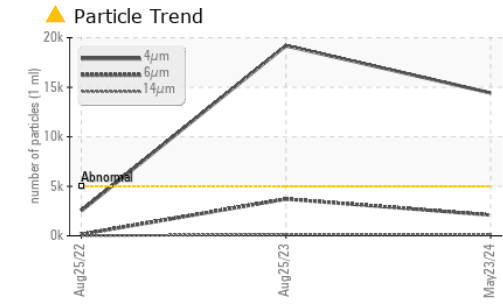
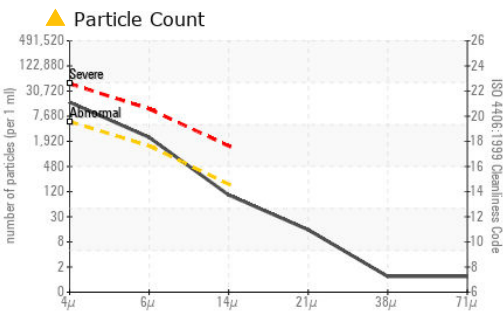
There is a moderate amount of silt (particulates < 14 microns in size) present in the oil.

Silicon	ppm	ASTM D5185(m)	>20	<b>8</b>	7	6
Potassium	ppm	ASTM D5185(m)	>20	<b>2</b>	<1	2
Water		WC Method	>0.1	<b>NEG</b>	NEG	NEG
Particles >4µm		ASTM D7647	>5000	<b>▲ 14420</b>	▲ 19191	2513
Particles >6µm		ASTM D7647	>1300	<b>● 2091</b>	▲ 3714	147
Particles >14µm		ASTM D7647	>160	<b>88</b>	119	13
Particles >21µm		ASTM D7647	>40	<b>13</b>	28	3
Particles >38µm		ASTM D7647	>10	<b>1</b>	2	0
Particles >71µm		ASTM D7647	>3	<b>1</b>	0	0
Oil Cleanliness		ISO 4406 (c)	>19/17/14	<b>▲ 21/18/14</b>	▲ 21/19/14	19/14/11
Silt	scalar	Visual*	NONE	<b>NONE</b>	VLITE	NONE
Debris	scalar	Visual*	NONE	<b>VLITE</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

**FLUID CONDITION**

The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Sodium	ppm	ASTM D5185(m)		<b>4</b>	4	3
Boron	ppm	ASTM D5185(m)	1	<b>5</b>	2	7
Barium	ppm	ASTM D5185(m)	0	<b>&lt;1</b>	0	0
Molybdenum	ppm	ASTM D5185(m)	1	<b>&lt;1</b>	2	2
Manganese	ppm	ASTM D5185(m)	1	<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185(m)	1	<b>13</b>	10	13
Calcium	ppm	ASTM D5185(m)	2864	<b>2469</b>	3039	2946
Phosphorus	ppm	ASTM D5185(m)	987	<b>933</b>	956	865
Zinc	ppm	ASTM D5185(m)	1162	<b>1150</b>	1116	1023
Sulfur	ppm	ASTM D5185(m)	3713	<b>3476</b>	3658	3170
Visc @ 40°C	cSt	ASTM D7279(m)	35.38	<b>40.6</b>	40.7	41.5



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : GFL0100569 **Received** : 28 May 2024  
**Lab Number** : 02638134 **Tested** : 30 May 2024  
**Unique Number** : 5787296 **Diagnosed** : 30 May 2024 - Wes Davis  
**Test Package** : MOB 1 ( Additional Tests: PrtCount )

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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.