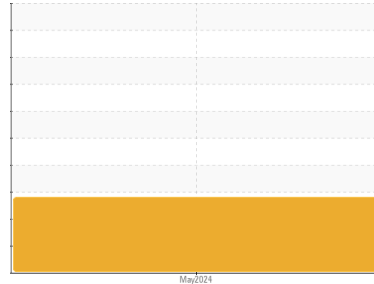


OIL ANALYSIS REPORT

Sample Rating Trend



VISCOSITY



Area

(VS77681-4)

Machine Id

GROVE GROVE GR-007 (S/N 221771)

Component

Hydraulic System

Fluid

PETRO CANADA ENVIRON MV 46 (--- GAL)

DIAGNOSIS

Recommendation

Nous vous recommandons de remplacer le filtre et d'utiliser un système de filtrage hors-ligne afin d'améliorer la propreté du fluide. Confirmez la source du lubrifiant utilisé pour l'appoint/remplissage. Nous vous recommandons d'échantillonner de nouveau dès que possible afin de contrôler la situation. À NOTER: S.V.P. inclure, avec le prochain échantillon, des détails de la capacité du réservoir et le type et le degré de filtration. (Customer Sample Comment: Petro Canada MV46 Old oil first test, contaminated with mineral oil.)

Wear

Les taux d'usure de tous les composants sont normaux.

Contamination

Il y a une quantité modérée de matières particulières (2 à 100 µm de taille) présente dans l'huile.

Fluid Condition

La viscosité de l'huile est inférieure à la viscosité type, ce qui pourrait indiquer l'ajout d'un grade d'huile plus léger. Ceci, en plus des niveaux d'additifs, indique que la marque ou le type d'huile ne correspond pas à ce qui a été signalé. Le AN est acceptable pour ce fluide.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	PC0087976	---	---
Sample Date	Client Info	13 May 2024	---	---
Machine Age	hrs Client Info	2468	---	---
Oil Age	hrs Client Info	0	---	---
Oil Changed	Client Info	N/A	---	---
Sample Status		ABNORMAL	---	---

CONTAMINATION

method	limit/base	current	history1	history2
Water	WC Method >0.05	NEG	---	---

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185(m) >20	6	---	---
Chromium	ppm ASTM D5185(m) >20	<1	---	---
Nickel	ppm ASTM D5185(m) >20	0	---	---
Titanium	ppm ASTM D5185(m)	0	---	---
Silver	ppm ASTM D5185(m)	0	---	---
Aluminum	ppm ASTM D5185(m) >20	<1	---	---
Lead	ppm ASTM D5185(m) >20	0	---	---
Copper	ppm ASTM D5185(m) >20	1	---	---
Tin	ppm ASTM D5185(m) >20	0	---	---
Antimony	ppm ASTM D5185(m)	0	---	---
Vanadium	ppm ASTM D5185(m)	0	---	---
Beryllium	ppm ASTM D5185(m)	0	---	---
Cadmium	ppm ASTM D5185(m)	0	---	---

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185(m) 0	1	---	---
Barium	ppm ASTM D5185(m) 0	<1	---	---
Molybdenum	ppm ASTM D5185(m) 0	0	---	---
Manganese	ppm ASTM D5185(m) 0	0	---	---
Magnesium	ppm ASTM D5185(m) 0	3	---	---
Calcium	ppm ASTM D5185(m) 0	40	---	---
Phosphorus	ppm ASTM D5185(m) 650	497	---	---
Zinc	ppm ASTM D5185(m) 0	87	---	---
Sulfur	ppm ASTM D5185(m) 1420	1236	---	---
Lithium	ppm ASTM D5185(m)	<1	---	---

CONTAMINANTS

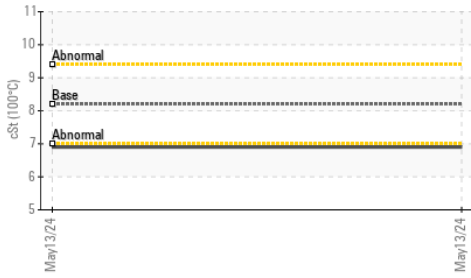
method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185(m) >15	2	---	---
Sodium	ppm ASTM D5185(m)	<1	---	---
Potassium	ppm ASTM D5185(m) >20	<1	---	---

FLUID CLEANLINESS

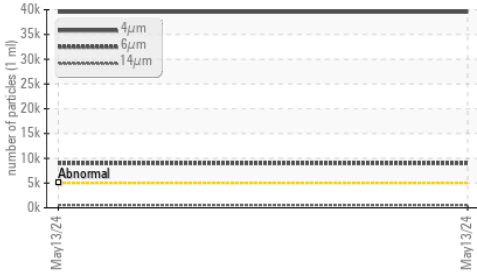
method	limit/base	current	history1	history2
Particles >4µm	ASTM D7647 >5000	▲ 39533	---	---
Particles >6µm	ASTM D7647 >1300	▲ 8987	---	---
Particles >14µm	ASTM D7647 >160	▲ 558	---	---
Particles >21µm	ASTM D7647 >40	▲ 125	---	---
Particles >38µm	ASTM D7647 >10	7	---	---
Particles >71µm	ASTM D7647 >3	1	---	---
Oil Cleanliness	ISO 4406 (c) >19/17/14	▲ 22/20/16	---	---

OIL ANALYSIS REPORT

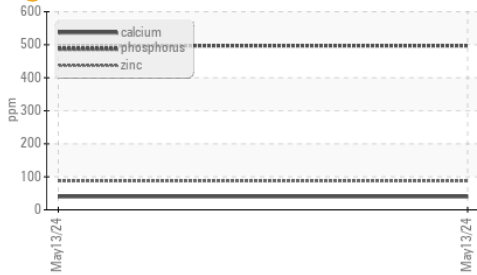
▲ Viscosity @ 100°C



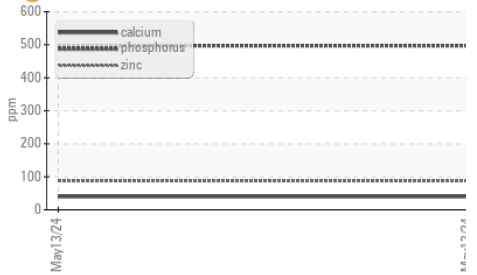
▲ Particle Trend



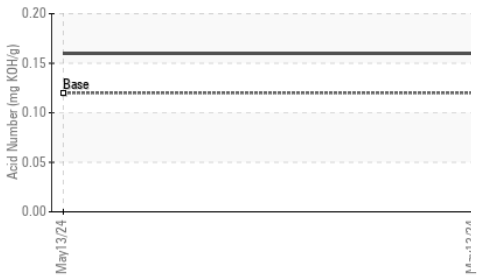
● Additives



● Additives



Acid Number



FLUID DEGRADATION

method	limit/base	current	history1	history2
Acid Number (AN) mg KOH/g	ASTM D974*	0.12	0.16	---

VISUAL

method	limit/base	current	history1	history2		
White Metal	scalar	Visual*	NONE	NONE	---	---
Yellow Metal	scalar	Visual*	NONE	NONE	---	---
Precipitate	scalar	Visual*	NONE	NONE	---	---
Silt	scalar	Visual*	NONE	NONE	---	---
Debris	scalar	Visual*	NONE	VLITE	---	---
Sand/Dirt	scalar	Visual*	NONE	NONE	---	---
Appearance	scalar	Visual*	NORML	NORML	---	---
Odor	scalar	Visual*	NORML	NORML	---	---
Emulsified Water	scalar	Visual*	>0.05	NEG	---	---
Free Water	scalar	Visual*		NEG	---	---

FLUID PROPERTIES

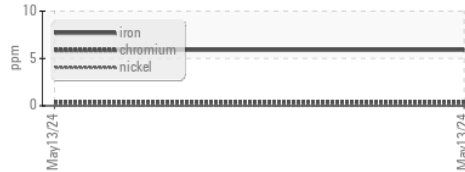
method	limit/base	current	history1	history2		
Visc @ 40°C	cSt	ASTM D7279(m)	45.0	38.6	---	---
Visc @ 100°C	cSt	ASTM D7279(m)	8.2	▲ 6.9	---	---
Viscosity Index (VI)	Scale	ASTM D2270*	158	139	---	---

SAMPLE IMAGES

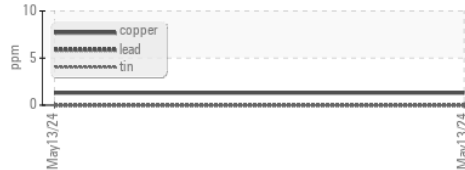
method	limit/base	current	history1	history2
Color			no image	no image
Bottom			no image	no image

GRAPHS

▲ Ferrous Alloys



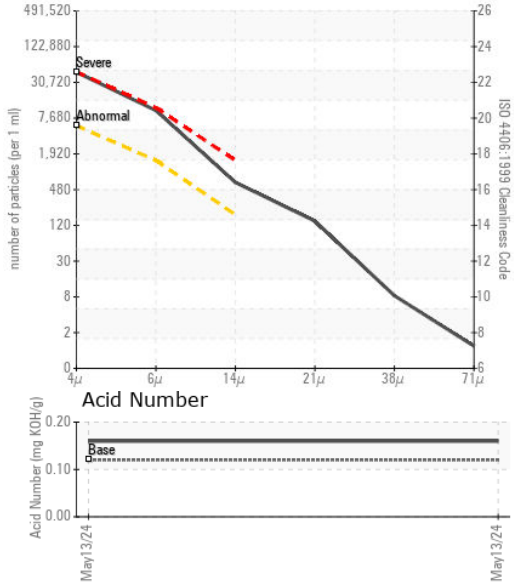
▲ Non-ferrous Metals



▲ Viscosity @ 40°C



▲ Particle Count



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9
Sample No. : PC0087976 **Received** : 17 May 2024
Lab Number : **02636353** **Tested** : 21 May 2024
Unique Number : 5785515 **Diagnosed** : 21 May 2024 - Kevin Marson
Test Package : IND 2 (Additional Tests: KV100, TAN Man, VI)

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.

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