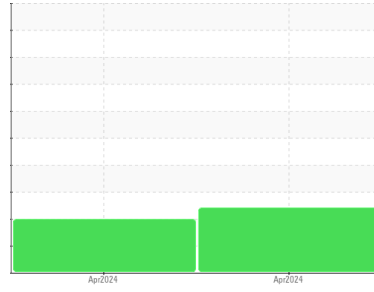


OIL ANALYSIS REPORT

Sample Rating Trend



ADDITIVES



Machine Id
DR191
Component
2 Hydraulic System
Fluid
PETRO CANADA ENVIRON MV 46 (--- GAL)

DIAGNOSIS

Recommendation

We recommend you service the filters on this component. Confirm the source of the lubricant being utilized for top-up/fill. We recommend an early resample to monitor this condition. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample.

Wear

All component wear rates are normal.

Contamination

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

Fluid Condition

Additive levels indicate the addition of a different brand, or type of oil. The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PC0080521	PC0087890	---
Sample Date	Client Info			17 Apr 2024	08 Apr 2024	---
Machine Age	hrs	Client Info		0	1812	---
Oil Age	hrs	Client Info		0	0	---
Oil Changed	Client Info			N/A	Not Changd	---
Sample Status				ABNORMAL	ATTENTION	---

CONTAMINATION		method	limit/base	current	history1	history2
Water	WC Method		>0.1	NEG	NEG	---

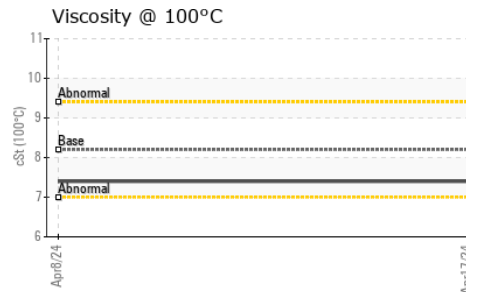
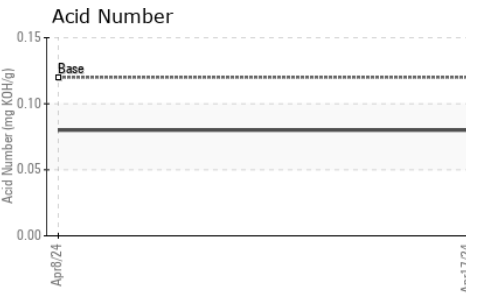
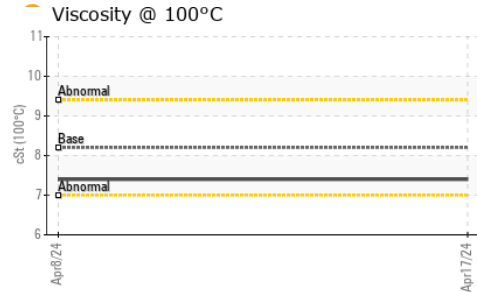
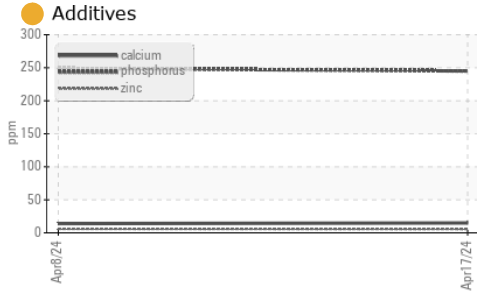
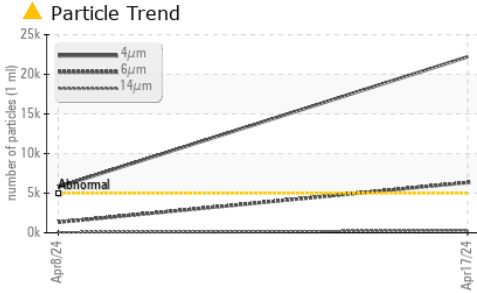
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	2	2	---
Chromium	ppm	ASTM D5185(m)	>10	<1	<1	---
Nickel	ppm	ASTM D5185(m)	>10	0	0	---
Titanium	ppm	ASTM D5185(m)		0	0	---
Silver	ppm	ASTM D5185(m)		0	0	---
Aluminum	ppm	ASTM D5185(m)	>10	0	0	---
Lead	ppm	ASTM D5185(m)	>10	<1	<1	---
Copper	ppm	ASTM D5185(m)	>75	1	1	---
Tin	ppm	ASTM D5185(m)	>10	0	0	---
Antimony	ppm	ASTM D5185(m)		0	0	---
Vanadium	ppm	ASTM D5185(m)		0	0	---
Beryllium	ppm	ASTM D5185(m)		0	0	---
Cadmium	ppm	ASTM D5185(m)		0	0	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	0	3	3	---
Barium	ppm	ASTM D5185(m)	0	0	0	---
Molybdenum	ppm	ASTM D5185(m)	0	0	0	---
Manganese	ppm	ASTM D5185(m)	0	0	0	---
Magnesium	ppm	ASTM D5185(m)	0	1	<1	---
Calcium	ppm	ASTM D5185(m)	0	15	14	---
Phosphorus	ppm	ASTM D5185(m)	650	245	249	---
Zinc	ppm	ASTM D5185(m)	0	6	6	---
Sulfur	ppm	ASTM D5185(m)	1420	2275	2415	---
Lithium	ppm	ASTM D5185(m)		<1	<1	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>20	<1	0	---
Sodium	ppm	ASTM D5185(m)		2	2	---
Potassium	ppm	ASTM D5185(m)	>20	<1	<1	---

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	22212	5789	---
Particles >6µm		ASTM D7647	>1300	6346	1330	---
Particles >14µm		ASTM D7647	>160	291	61	---
Particles >21µm		ASTM D7647	>40	43	15	---
Particles >38µm		ASTM D7647	>10	3	1	---
Particles >71µm		ASTM D7647	>3	1	1	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	22/20/15	20/18/13	---

OIL ANALYSIS REPORT



FLUID DEGRADATION

method	limit/base	current	history1	history2	
Acid Number (AN) mg KOH/g	ASTM D974*	0.12	0.08	0.08	---

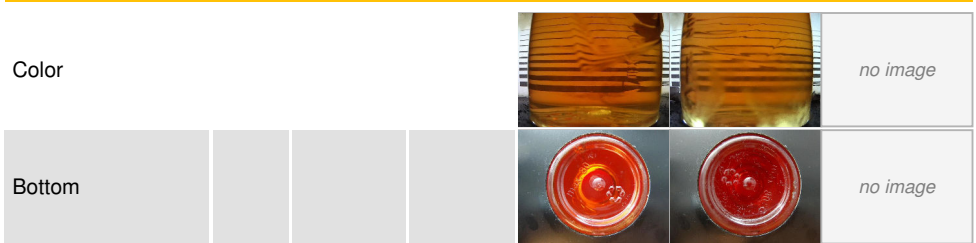
VISUAL

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	VLITE	---
Sand/Dirt	scalar	Visual*	NONE	VLITE	VLITE	---
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	---

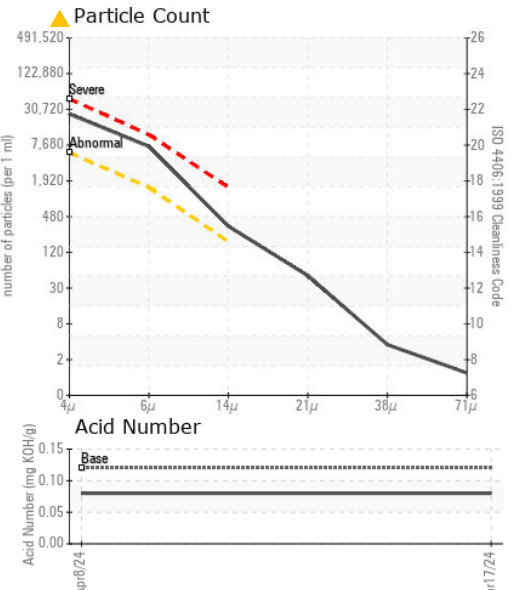
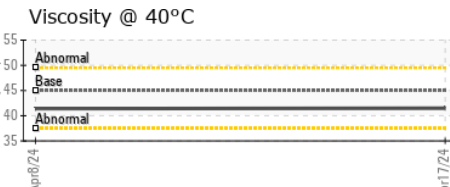
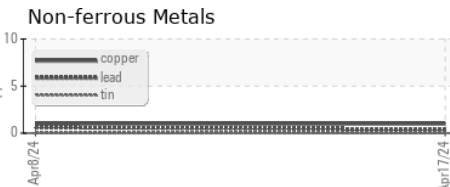
FLUID PROPERTIES

method	limit/base	current	history1	history2		
Visc @ 40°C	cSt	ASTM D7279(m)	45.0	41.5	41.4	---
Visc @ 100°C	cSt	ASTM D7279(m)	8.2	7.4	7.4	---
Viscosity Index (VI)	Scale	ASTM D2270*	158	144	145	---

SAMPLE IMAGES



GRAPHS



Laboratory : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9 Green Infrastructure and Partners Inc (GPI) - 286 - Shoring & Foundations
Sample No. : PC0080521 **Received** : 23 Apr 2024 151 Ram Forest Rd,
Lab Number : **02630933** **Tested** : 24 Apr 2024 Stouffville, ON
Unique Number : 5772086 **Diagnosed** : 24 Apr 2024 - Kevin Marson CA L4A 2G8
Test Package : IND 2 (Additional Tests: KV100, VI) Contact: Shannon Abbott
 sabbott@gipi.com

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.