

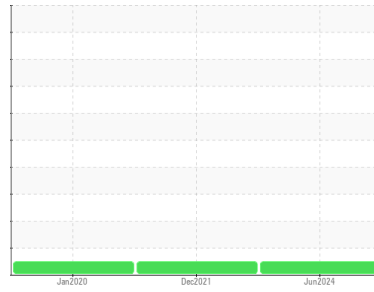


OIL ANALYSIS REPORT



Area
GM Seattle Off Road Shop
 Machine Id
[GM Seattle Off Road Shop] 24-590
 Component
Hydraulic System
 Fluid
CAT HYDO (--- GAL)

Sample Rating Trend



NORMAL



DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. (Customer Sample Comment: Top Up Amount: 2 gallons)

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the fluid. The amount and size of particulates present in the system are acceptable.

Fluid Condition

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

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PE0003087	PE12291043	PE12291709
Sample Date	Client Info			04 Jun 2024	06 Dec 2021	23 Jan 2020
Machine Age	hrs	Client Info		3235	1320	4
Oil Age	hrs	Client Info		3235	1320	4
Oil Changed	Client Info			Oil Added	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

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

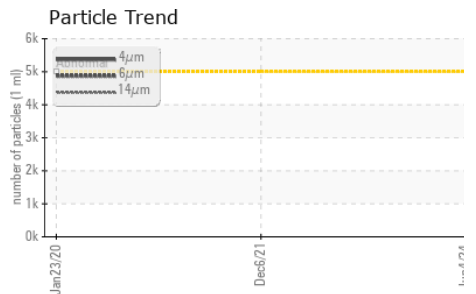
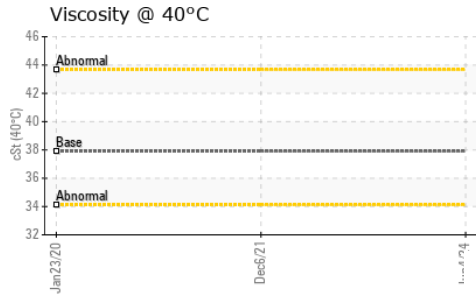
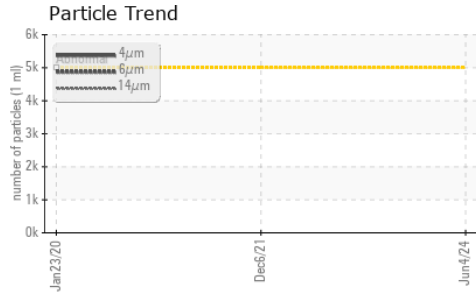
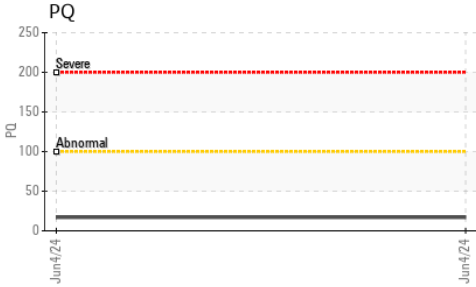
WEAR METALS		method	limit/base	current	history1	history2
PQ		ASTM D8184		17	---	---
Iron	ppm	ASTM D5185m	>20	8	6	1
Chromium	ppm	ASTM D5185m	>10	<1	1	0
Nickel	ppm	ASTM D5185m	>10	<1	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m		0	<1	<1
Aluminum	ppm	ASTM D5185m	>10	2	1	0
Lead	ppm	ASTM D5185m	>10	<1	2	0
Copper	ppm	ASTM D5185m	>75	7	8	2
Tin	ppm	ASTM D5185m	>10	0	0	1
Antimony	ppm	ASTM D5185m		---	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	---	---

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		0	1	0
Barium	ppm	ASTM D5185m		2	2	3
Molybdenum	ppm	ASTM D5185m		0	0	0
Manganese	ppm	ASTM D5185m		0	---	---
Magnesium	ppm	ASTM D5185m		4	3	2
Calcium	ppm	ASTM D5185m		244	348	154
Phosphorus	ppm	ASTM D5185m	1100	522	688	706
Zinc	ppm	ASTM D5185m	1210	665	797	954
Sulfur	ppm	ASTM D5185m		1640	---	---

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	5	2	0
Sodium	ppm	ASTM D5185m		0	4	2
Potassium	ppm	ASTM D5185m	>20	1	0	1

FLUID CLEANLINESS		method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>5000	1973	---	---
Particles >6µm		ASTM D7647	>1300	278	---	---
Particles >14µm		ASTM D7647	>160	6	---	---
Particles >21µm		ASTM D7647	>40	1	---	---
Particles >38µm		ASTM D7647	>10	0	---	---
Particles >71µm		ASTM D7647	>3	0	---	---
Oil Cleanliness		ISO 4406 (c)	>19/17/14	18/15/10	18/16/12	18/17/14

OIL ANALYSIS REPORT



FLUID DEGRADATION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.39	0.67	1.46

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	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	---
Free Water	scalar	*Visual		NEG	---

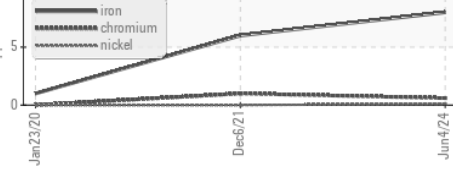
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	37.9	42.3	---

SAMPLE IMAGES

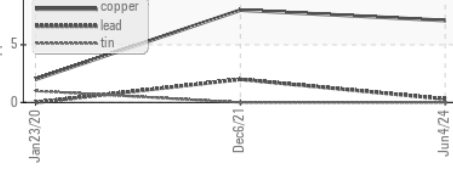
	method	limit/base	current	history1	history2
Color					
Bottom					

GRAPHS

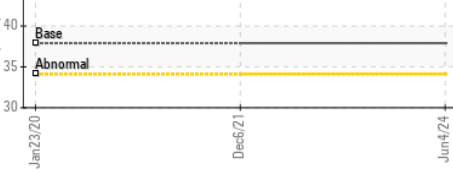
Ferrous Alloys



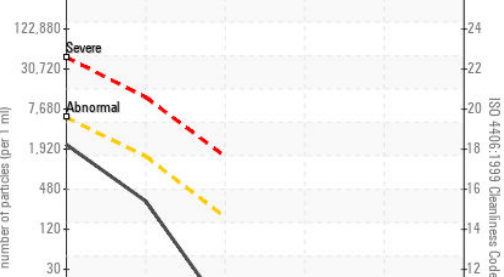
Non-ferrous Metals



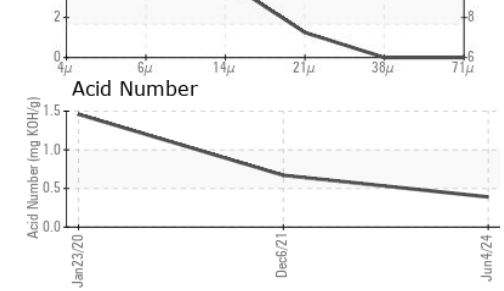
Viscosity @ 40°C



Particle Count



Acid Number



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PE0003087
Lab Number : 06210681
Unique Number : 11083545
Test Package : CONST (Additional Tests: ICP, KV40, PQ, PrtCount, SCREEN)
Received : 14 Jun 2024
Tested : 18 Jun 2024
Diagnosed : 18 Jun 2024 - Angela Borella

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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)